


Path Finder

Voice Processing System

System Administrator's Manual

-- Includes Optional Modules and Installation Forms

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Contents

1 Introduction

Overview	1-1
PathFinder Description	1-1
Basic Process	1-1
PathFinder Components	1-2

2 Installation

Perform a System Analysis	2-1
System Requirements	2-1
Determining System Size	2-3
PC System Placement	2-5
Telephony Hardware Compatibility	2-5
Install and Configure Hardware	2-5
Preparation	2-6
Overall Hardware Setup Procedure	2-6
Dialogic® Products	2-7
Telephony Hardware Configuration	2-7
Telephony Hardware Installation	2-10
Voice Network Attachment	2-12
Software Security Key	2-13
Install and Configure Operating System	2-14
Installation	2-14
Configuration	2-14
Install PathFinder Software	2-20
Prerequisites & Preparation	2-20
Software Installation	2-21
Configure Dialogic Software & PBXpert	2-25
Dialogic Software	2-25
PBXpert	2-42
Software Overview	2-51
Installation Troubleshooting	2-53

3 Phone System Integration and Setup

Phone System Integration Protocols	3-1
SMDI	3-1
Integration	3-2
Customization Parameters	3-3
SMDI.INI File	3-4
Problem Diagnosis	3-5
RS-232 Connection	3-5
Other Protocols	3-5
Phone System Set Up	3-6
Starplus Systems	3-6
infinite Systems	3-28

4 Configuration Overview

Prerequisites	4-1
Overall Configuration Procedure	4-1
Configuration Preparation	4-2
Defining Parameters	4-2
MAINT Overview	4-5
File Menu	4-5
Configuration Menu	4-5
Edit Menu	4-6
Reports Menu	4-7
Help Menu	4-7
MAINT Toolbar	4-8
Subscriber Settings Button	4-8
Class of Service Button	4-8
Voice Menu Button	4-8
Time Control Button	4-9
Line Settings Button	4-9
Exit Button	4-9
Special Characters & Strings	4-9
Access Levels & MAINT Passwords	4-10
MAINT Logins	4-10
Access Levels	4-10
Setting MAINT User Passwords	4-12

5 MAINT Application - System Settings

Module Settings	5-1
Digit Lengths	5-1
Record/Playback	5-2
Auto-Attendant	5-4
Logging	5-6
Operators	5-9
Voice Mail	5-11
Language	5-13
Retries/Timeouts	5-14
System Settings	5-16
Directories	5-16
Auxiliary Tasks	5-17
LPT / COM Ports	5-18
Time Periods	5-18
Telephony Settings	5-20
Voice Lines	5-21
MWI/Notification	5-21
Hang Up Detection	5-23
Transfer Settings	5-30
Rings	5-32
Perfect Call	5-33
Other MAINT Settings	5-34
PBX Integrations	5-34
Optional Modules	5-35
Registry	5-36
Registry Maintenance	5-36
User Settings	5-40
Creating Users	5-40
Editing User Setups	5-46
User-Edited Features	5-55
Deleting Users	5-55
Class of Service Settings	5-56
Definition	5-56
Templates	5-57

General Settings	5-59
Greeting Settings	5-61
Message Types Settings	5-63
Mailbox Caller Settings	5-66
Mailbox Owner Settings	5-68
Notification Settings	5-73
Auto-Attendant Settings	5-77
Creating a COS	5-81
Modifying a COS	5-83
Deleting a COS	5-83
Menu Settings	5-83
Designing a Menu	5-84
Creating a Menu	5-86
Deleting a Menu	5-87
Editing a Menu	5-87
Time Control Settings	5-93
Setting Up Time Control Parameters	5-94
Creating a Template Time Control	5-94
Creating a Time Control	5-95
Editing a Time Control	5-96
Deleting a Time Control	5-101
Line Settings	5-102
Assigning Port Modules	5-102
Setting Up Phone Lines	5-102
Suggested Initial Module Settings	5-107

6 Lists and Reports

Distribution Lists	6-3
Creating a System List	6-3
Editing a System List	6-6
Deleting a System List	6-6
System Reports	6-7
Reports Overview	6-7
Reports Criteria	6-7
Setup Reporting	6-9

Activity Reports	6-10
Usage	6-10
Mailbox Usage	6-11
Extension Usage	6-13
Menu Activity	6-14
Fax Documents	6-16
Notification Usage	6-17
Setting Reports	6-18
Mailbox Settings Summary	6-19
Mailbox Settings Detail	6-20
Extension Settings Summary	6-21
Extension Settings Detail	6-22
Class of Service Settings	6-23
Menu Settings	6-24
Time Control Settings	6-25
Registry Settings Summary	6-26
Registry Settings Detail	6-28
System Distribution Lists	6-29
Directory Reports	6-30
Directory Report	6-30
Logs Reports	6-31
Daily Log	6-32
Maintenance Log	6-33
Error Log	6-34
Messages Reports	6-35
Message Summary	6-35
Message Detail	6-36
Greetings & Signatures	6-37
Customized Reports	6-38

7 Boom Box and Monitor Applications

Boom Box Application	7-1
Requirements	7-1
Installation	7-1
Menu Bar Options	7-2
Buttons	7-5

File Information	7-8
Troubleshooting	7-8
Boom Box System Prompts	7-9
Indexed vs. Non-Indexed Prompts	7-9
Non-Indexed Prompts	7-10
PathFinder Monitor Application	7-13
Startup & Orientation	7-13
Configure Host Information	7-14
Monitor Display Windows	7-15
8 Back-Ups / Logs / Errors / and Troubleshooting	
Backing Up PathFinder	8-1
Log Files & Error Messages	8-2
System Error Log	8-2
System Maintenance Log	8-3
System Activity Log	8-4
Menu Logs	8-9
No Answer Log	8-9
Auto-Attendant Logs	8-9
Troubleshooting	8-11
Technique	8-11
Questions & Answers	8-12
A Command Files & Notification Scripts	
Command Files	A-1
Guidelines	A-1
Command Descriptions	A-2
Quick Commands	A-10
Quick Command Descriptions	A-10
Example	A-11
Combining Commands	A-11
Technical Notes	A-11
Pre-Defined Command Files	A-12
Sample Pager Files	A-12
Modifying Command Files	A-13

Examples	A-13
B Installation Forms	
C Optional Modules	
Introduction	C-1
PathFinder Hardware Components	C-1
Optional Software Modules	C-1
Chalk Talk	C-2
Features & Specifications	C-2
Outbound Calling (using Call Lists)	C-4
Homework Assignment Information	C-22
Question & Answer Sessions	C-26
Fax Support	C-34
Fax Mail	C-34
Fax On Demand	C-34
Configuration	C-35
Facsimile Database	C-40
Sample Fax On Demand Application	C-43
Facsimile Mailboxes	C-44
Internet Fax Delivery	C-45
Requirements	C-46
Installation	C-46
Setup & Configuration	C-47
Usage	C-54
Troubleshooting	C-55
Onelook (Unified Messaging)	C-55
System Requirements	C-56
Installation & Configuration	C-57
Using Onelook	C-61
Troubleshooting	C-72
Onelook + Point to Point Server	C-73
Requirements	C-74
Installation	C-75
Setup & Configuration	C-75
Usage	C-78

Troubleshooting	C-83
Point To Point Messaging	C-84
Features	C-85
Requirements	C-85
Installation	C-86
Configuration	C-86
Using Point to Point Messaging	C-89
Troubleshooting	C-90
TeleQueue	C-95
Requirements	C-95
Getting Started	C-96
TeleQueue Registry	C-96
Setup Items	C-103
Prompt Names and Descriptions	C-105
Troubleshooting / Testing	C-107

Figures

Model Dialog/4	2-8
Run Window	2-22
PathFinder Start Menu	2-52
Program Group for <i>PathFinder</i>	4-2
Loading Key Window	4-3
First Time Questions Window	4-3
First Time Questions Window	4-4
Edit MAINT Users Window	4-12
Module Settings Toolbar	5-1
Module Settings: Digit Lengths Window	5-1
Module Settings: Record/Playback Settings Window	5-2
Module Settings: Auto-Attendant Window	5-4
Module Settings: Logging Window	5-6
Module Settings: Operator Window	5-9
Module Settings: Voice Mail Window	5-11
Module Settings: Language Window	5-13
Module Settings: Retries/TimeOuts Window	5-14
System Settings Toolbar	5-16
System Settings: Directories Window	5-16
Auxiliary Task Settings Window	5-17
LPT / COM Port Settings Window	5-18
Time Period Settings Window	5-19
Telephony Settings Toolbar	5-20
Telephony Settings: Voice Channels Window	5-21
Telephony Settings: MWI/Notification Window	5-21
Telephony Settings: Hang-Up Detection Window	5-23
Add Tone Template Window	5-27
Telephony Settings: Transfer Settings Window	5-30
Telephony Settings: Rings Window	5-32
Telephony Settings: Perfect Call Window	5-33
PBX Integration Window	5-34

PBX Integration (next) Window	5-35
Registry Window	5-36
Edit Registry Item Window	5-37
Add Registry Item Window	5-38
Select User to Edit Window	5-41
Create Users Window	5-42
Select User to Edit Window	5-43
Create Users Window	5-44
Create Range Window	5-45
Edit User's Settings Window	5-47
Mailbox User's Settings Window	5-49
Edit User's Extension Settings Window	5-52
Edit COS Window (for the COS named General)	5-58
Edit COS General Settings Window	5-59
Edit COS Voice Mail Greeting Settings Window	5-61
Edit COS Voice Mail Message Settings Window	5-63
Edit COS Voice Mail Caller Settings Window	5-66
Edit COS Voice Mail Owner Settings Window	5-68
Edit COS Voice Mail Notification Settings Window	5-73
Edit COS Automated Attendant Settings Window	5-78
Select COS to Edit Window	5-81
Edit COS Window (for the COS named General)	5-82
Sample Flow Chart for Menu Design	5-85
Select Menu to Edit Window	5-86
Edit Menu Window (for a menu named "Banking")	5-87
Select Time Control To Edit Window	5-94
Create Time Control Window	5-95
Edit Time Control Window	5-96
Edit Time Control Line Item Window	5-97
Edit Time Control Window	5-99
Line Settings Window	5-103
Edit Line Settings Window	5-103
Edit Line Setting Window	5-104
Edit Line Setting Window	5-104

Edit Line Setting Window	5-105
Edit Line Settings Window	5-106
Edit > System Lists	6-3
System Lists Window	6-4
Create a System List Window	6-4
Edit System List Window	6-5
Setup Report Generation Window	6-9
Usage Report Example	6-10
Mailbox Usage Report Example	6-11
Extension Usage Report Example	6-13
Menu Activity Report Example	6-15
Fax Documents Report Example	6-16
Notification Usage Report Example	6-17
Mailbox Settings Summary Report Example	6-19
Mailbox Settings Detail Report Example	6-20
Extension Settings Summary Report Example	6-21
Extension Settings Detail Report Example	6-22
Class of Service Settings Report Example	6-23
Menu Settings Report Example	6-24
Time Control Settings Report Example	6-25
Registry Settings (Summary) Report Example	6-27
Registry Settings (Detail) Report Example	6-28
System Distribution Lists Report Example	6-29
Directory Report Example	6-30
Daily Log Report Example	6-32
Maintenance Log Report Example	6-33
Error/System Log Report Example	6-34
Message Summary Report Example	6-35
Message Detail Report Example	6-36
<i>Boom Box</i> Main Window	7-2
Set Port Window	7-4
<i>Boom Box</i> Edit Window	7-5
Add Prompt Window	7-7
Monitor Application Window	7-14

Monitor [Blockage Groups] Window	7-15
Monitor [Event Counters] Window	7-16
Monitor [Line View] Window	7-17
Error Log Example	8-3
Typical Blind Transfer Call Log	8-5
Typical Supervised Transfer Call Log	8-6
Supervised Transfer Log (w/debugging)	8-7
Multiple Line/Call Log	8-8
Menu Selection Log	8-9
No Answer Log	8-9
Auto-Attendant Log (Single Call)	8-9
Auto-Attendant Log (Main Menu - No Action)	8-10
Auto-Attendant Log (Operator Call - Blind Transfer)	8-10
Auto-Attendant Log (VM Directory)	8-10
Command File - Sample	A-14
Call List Admin Screen	C-7
Call List - Process Flow	C-8
Call List - Activation	C-9
Edit Call-List Entries	C-10
Select Members to Call Screen	C-13
Load Template	C-14
Reports - Master List	C-16
Master List Detail Report	C-17
Database - Master List/Entry Screen	C-18
Database - Group List Entry Screen	C-19
Add User Screen	C-20
Edit Registry Item (MAINT App.)	C-24
Questionnaires Screen	C-26
Q&A Application - Edit Q&A ID Screen	C-27
Edit Question Screen	C-28
Start Homework Hotline Screen (MAINT App.)	C-30
FAX Settings	C-36
Edit Menu: FAX Window	C-39
Edit Menu: Facsimile Menu Window	C-43

Internet Fax Delivery - Administration & Reporting Window	C-47
Subscriber Add Window	C-48
Server Add Window	C-49
Add Translation Window	C-50
Routing Table Window	C-51
General Settings Window	C-52
Key 4 Action Window	C-53
Internet Fax Delivery - Server Window	C-54
Onelook Service Provider Window (blank)	C-59
Onelook Service Provider Window (complete)	C-60
Outlook Options Window	C-61
New Mail Icon	C-62
Message Management Window	C-62
Message Management Window	C-64
Onelook Voice Message Viewer Window	C-65
New Form Selection Window	C-67
Onelook Voice Message Viewer Window	C-68
Onelook Fax Message Viewer	C-69
Archive Folder Setup (in Outlook)	C-71
Main Mailer Window	C-78
Connection Status SMTP-In Window	C-80
Connection Status SMTP-Out Window	C-81
Connection Status Pop Window	C-82
Connection Status Master Tab	C-83
Point to Point Settings Window	C-86
Point to Point Location Settings Window	C-88



Tables

Minimum System Requirements	2-2
Optional PC Equipment	2-3
Jump Board Configuration	2-9
SMDI Defaults	3-3
Starplus 2448 EX - Configuration Setup	3-7
Starplus 96EX - Configuration Setup	3-9
Starplus SPD 612 - Configuration Setup	3-11
Starplus SPD 1428 - Configuration Setup	3-13
Starplus SPD 2856 - Configuration Setup	3-15
Starplus SPD 4896 - Configuration Setup	3-17
Starplus DHS - Configuration Setup	3-19
Starplus Triad-S - Configuration Setup	3-21
Starplus Triad 1 - Configuration Setup	3-23
Starplus Triad 2 - Configuration Setup	3-25
Starplus Triad 3 - Configuration Setup	3-27
infinite 4096 - Configuration Setup	3-29
infinite DVX I - Configuration Setup	3-31
infinite DVX II - Configuration Setup	3-33
infinite DVX III - Configuration Setup	3-35
infinite Mach I - Configuration Setup	3-37
infinite DVXPlus II - Configuration Setup	3-39
infinite DVXPlus III - Configuration Setup	3-41
infinite DVXPlus IV - Configuration Setup	3-43
Special Characters & Strings	4-9
System Access Levels	4-11
Key Action Definitions	5-90
<i>Boom Box</i> Window Buttons	7-5
Edit Functions Buttons	7-6
File Functions Buttons	7-7
Non-Indexed (Customizable) Prompts	7-11
PathFinder Backup Methods	8-1

System Activity Log Fields	8-2
System Activity Log Fields	8-4
System Activity Log Fields	8-5
Command Descriptions	A-2
Quick Command Descriptions	A-10
System Prompts	C-15
Outbound Call Responses	C-21
Homework Hotline (Default) Prompts	C-25
Questionnaire Prompt Files	C-32
Fax Fields and Descriptions	C-37
Telequeue Prompts and Descriptions	C-105

1

Introduction

This manual is an instructional tool for system administrators and others who work with *PathFinder*. It describes how to install, set up, design, monitor, and maintain various *PathFinder* applications.

Overview

PathFinder Description

PathFinder is a voice processing system that combines sophisticated application software with the power of the PC to handle a wide variety of telecommunications tasks.

PathFinder helps people communicate more effectively. It provides a bridge between a telephone and a computer. *PathFinder* uses pre-recorded, digitized human speech, called voice prompts, to talk to a caller. Unlike a tape recorder, which stores recordings sequentially, *PathFinder* stores recordings on a computer hard drive. This storage system allows *PathFinder* to access any voice prompt or recording in any order. *PathFinder* can communicate information by stringing together multiple voice prompts to form sentences.

Basic Process

In order to prepare, set up, and use *PathFinder*, the following three steps are required:

1. Install and configure all hardware, and install all software. Refer to [Chapter 2, Installation](#) for instructions on how to do this. You must work through every chapter in the order presented before you can move on.
2. Configure *PathFinder*. Refer to [Chapter 2, Installation](#) for instructions on how to carry out the initial configuration of *PathFinder*. You must work through this entire configuration procedure before moving on.
3. Start up and run *PathFinder*. Refer to [Chapter 7, PathFinder Monitor Application](#) for more information on running *PathFinder*.

Even though you may want to jump right in and begin using *PathFinder* immediately, it is strongly recommended that you carefully review this manual before proceeding. This will help orient you with the many features and options available as you work through the setup and operation of *PathFinder*.

PathFinder Components

PathFinder is made up of four components:

- ❑ **Foundation Software** -- The platform from which application modules run (e.g., Auto-Attendant, Voice Messaging, etc.)
- ❑ **Optional Software Modules** -- Purchased separately (e.g., Point to Point Messaging, Internet Fax Delivery, etc.)
- ❑ **Telephony Hardware** -- Voice cards, etc.
- ❑ **Personal Computer (PC)**

2

Installation

This chapter describes the *PathFinder* installation procedure, the initial analysis and preparation of your system prior to installing hardware and software.

Perform a System Analysis

You must perform an initial analysis and prepare your system prior to installation of hardware and software.

Before starting the installation of *PathFinder*, you need to consider certain hardware requirements and recommendations. Having the proper hardware configuration is a key factor in *PathFinder*'s performance and reliability.

System Requirements

These guidelines help reduce the possibility of hardware-related problems with *PathFinder*.



All system components--both required equipment and optional equipment--should be listed in the Windows NT®/2000 Hardware Compatibility List (HCL), which can be found on the Internet at <http://www.microsoft.com/hwtest/hcl>. The HCL is a database of hardware, classified by function.

Minimum Requirements

The following are system requirements for *PathFinder*.

Table 2-1: Minimum System Requirements

Component	4-Port System	8-Port System	12-Port System (or higher)
Computer/Processor	Intel-based Pentium® 300 MHz or faster	Intel-based Pentium 667 MHz or faster	Intel-based Pentium 733 MHz or faster
Memory	64 MB	128 MB	256 MB
Hard Disk	1.2 GB hard drive (~200 hours of voice storage)	2.1 GB hard drive (~400 hours of voice storage)	2.1 GB hard drive (~400 hours of voice storage)
Motherboard	Typically, one ISA expansion slot per 4 voice or fax ports; consult your sales representative		
Drive	CD-ROM		
Display	VGA or higher-resolution display adapter		
Voice Cards	Refer to <i>"Telephony Hardware Compatibility" on page 2-5</i>		
Peripheral/Miscellaneous	<input type="checkbox"/> Microsoft Mouse or compatible pointing device <input type="checkbox"/> Keyboard		
Software	<input type="checkbox"/> Windows 2000 Professional, Windows 2000 Server, Windows NT® 4.0 Workstation or Windows NT 4.0 Server <input type="checkbox"/> Windows NT Service Pack 5		



Refer to [Appendix C, "Optional Modules"](#) for information on additional system requirements (if any) for any Optional Modules you have purchased.

Optional PC Equipment

The following optional equipment is not required for the proper functioning of *PathFinder*, but it may be useful.

Table 2-2: Optional PC Equipment

Network Interface Card	Must be listed on the Windows HCL
Remote Diagnostics	<input type="checkbox"/> PC Anywhere 32-bit <input type="checkbox"/> Modem (on the Windows HCL) 33.6 bps or faster
Backup	Tape Drive (on Windows HCL)
Backup Power Supply	An un-interruptible power supply from the Windows HCL
Surge Protector	A device to protect against electrical spikes

Determining System Size

The size of *PathFinder* can be measured in two ways:

- ☐ Amount of disk storage
- ☐ Number of ports

Once *PathFinder* is up and running, it generates a number of reports that allow you to accurately monitor use. In the meantime, the following guidelines will help you determine the proper hardware configuration.

We also recommend that you consult with your Vodavi sales representative and technical support staff. They can provide valuable insight when determining resource requirements.

Hard Disk Storage Size

Voice processing can require a large amount of disk space. Many applications are disk intensive, meaning they continually access information on the hard drive. For this reason, it is vital that you incorporate quality components in your system, especially in the case of the disk drive.

The size of the drive depends on two factors: the application and the number of users. On average, one hour of message storage can support about thirty users. A general rule of thumb is that one hour of voice storage requires about 10 MB of disk space.

Storage Size Factors

Factors affecting the amount of storage you need include the following:

- ☐ Number of extensions and mailboxes required
- ☐ Number of messages received and accessed per day
- ☐ Average message length
- ☐ Message retention period



You can also control disk use by encouraging users to delete messages as soon as they are reviewed.

Another factor to consider is the quality level of the voice prompts.

PathFinder's voice recording sampling rate should be set at 6 KHz. Any other sampling rate will cause problems when playing the prompts. At this rate, *PathFinder* can format about fifty minutes of voice data per 10 MB of disk space.

PathFinder software and its database use about 10 MB of disk space. Therefore, if you need three hours of voice storage, it is recommended that you make a hard drive allocation to voice mail storage of at least 40 MB.

Number of Ports

The number of ports required depends on several factors, such as:

- ☐ Application size
- ☐ Time of day
- ☐ Average length of a transaction
- ☐ Average traffic and peak traffic loads
- ☐ Grade of service (the number of acceptable busy calls received)

In general, each port supports about twenty-five users.

PC System Placement

When choosing the location for the *PathFinder* PC, consider such factors as convenience, security, and environment.

- ❑ Place the *PathFinder* PC in the same room or close to the area where the phone system is located.
- ❑ Provide a clean, relatively dust free space with adequate ventilation.
- ❑ The room should have a stable temperature and comply with the manufacturer's specifications.



Systems with RS-232 hookup for telephone integration or host connection must be located less than 50 feet from the source equipment. A short-haul modem is required if the distance spanned by the RS-232 hookup is greater than 50 feet.

- ❑ The *PathFinder* computer needs to be connected to a reliable source of power. Fluctuations in line voltage and power surges can impede operation and damage the PC or its components. An un-interruptible power supply (UPS) is recommended.

Telephony Hardware Compatibility

The following are the Dialogic cards that are used in the *PathFinder*:

- | | | |
|-----------------|----------|--|
| ❑ Dialog/4 | ❑ D42-SX | <i>NOTE -- Drivers are available, however, they will no longer be updated by Dialogic.</i> |
| ❑ VFX/40ESCplus | ❑ D42-SL | |

Install and Configure Hardware

The following tasks must be completed to install and configure your system hardware:

- ❑ Install Dialogic drivers (automatically installs in Windows 2000)
- ❑ Configure and install telephony hardware
- ❑ Make network attachments
- ❑ Make host computer attachment
- ❑ Install the software key

Preparation

Gather the following items in one place before starting the installation process:

Voice Cards -- *PathFinder* includes at least one voice card. Each card must be inspected for possible adjustments to the switches or the jumpers. The cards are fragile and susceptible to static electricity. These items can be purchased from a computer retailer.



Use an anti-static wrist strap and, if possible, an anti-static floor mat during inspection and installation of the voice cards and other hardware.

Screwdriver -- Used to remove and replace the computer chassis and install the voice cards. Size and type should be appropriate for your computer; most require Phillips head.

Needle Nose Pliers -- Used to remove or replace jumpers on voice cards. The pliers should be small so as not to damage either the card or jumpers.

Work Table -- The worktable should be sturdy, located in a well-lit area with adequate space to remove the computer chassis. It should also provide adequate space to unpack and inspect the voice cards. An anti-static floor mat in the area in front of and under the worktable is highly recommended.

Overall Hardware Setup Procedure

The steps necessary to set up system hardware depend upon the number of telephone lines (ports) your telephone system is designed to support, and any additional software modules, such as fax support, that have been purchased with *PathFinder*.

Some of the information contained in the rest of this chapter may not be applicable to you or your specific system setup. Check the section headings to determine which information in this chapter pertains to your specific hardware configuration.



*All cards are configured with default settings at the factory. However, you must confirm these settings prior to running *PathFinder*.*

Dialogic® Products

Refer to *“Telephony Hardware Compatibility” on page 2-5* for more information on compatible voice cards.

Current Drivers

PathFinder 8.2 uses Dialogic System Release 5.0 drivers. The default location of SR5/DNA drivers is:

C:\Program Files\Dialogic

Telephony Hardware Configuration

The following are instructions for configuring the Dialog/4™, the most commonly shipped voice card. Configure these voice cards prior to installation.



Refer to the following web sites for further information on installing and connecting Dialogic cards:

<http://support.dialogic.com/Install/Config/Dialog4/dlg4-003.pdf>
<http://support.dialogic.com/Install/Config/Dialog4/dlg4hwg3.pdf>
<http://support.dialogic.com/Install/Config/index.html>

Channels

The Dialog/4 voice cards support up to four independent voice I/O channels each with a telephone line interface. Each channel has the following capabilities:

- ☐ Record, digitize, and compress audio in real-time
- ☐ Play back previously recorded files
- ☐ Detect DTMF tones
- ☐ Generate DTMF and pulse tones for dialing
- ☐ Initiate and receive calls through the loop start telephone interface

Board-Level Jumpers

Card options and memory configurations are set through board jumpers and switches. The figure below illustrates Dialogic/4 jumpers and switches.



Refer to your Dialogic Voice Board Reference Card for specific locations of jumpers and switches for modification.

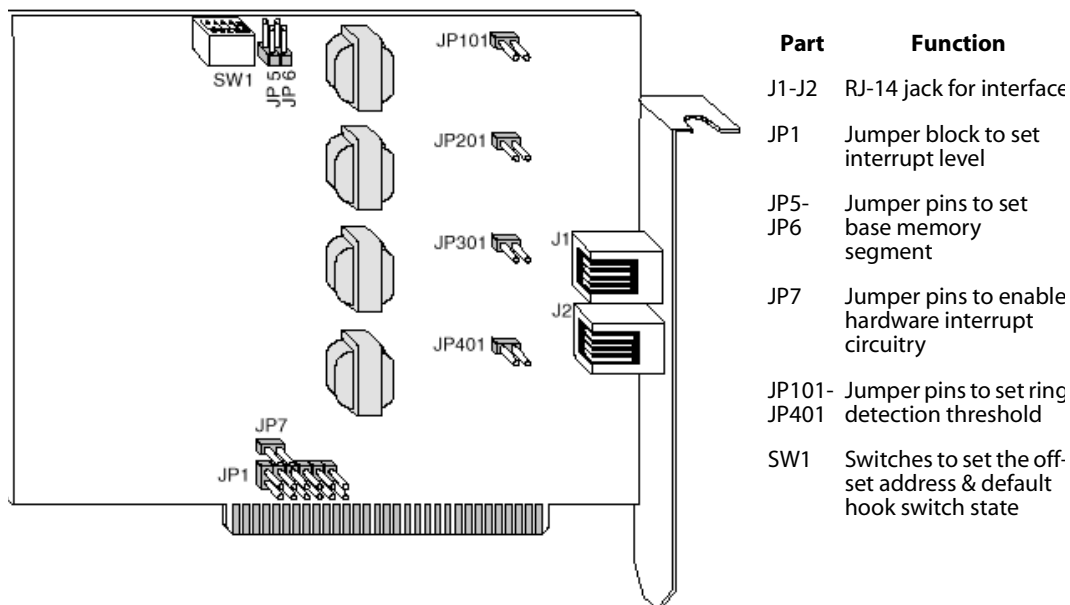


Figure 2-1: Model Dialog/4

Jump Board Configuration-- Configure your voice cards to match the following table. Refer to the documentation shipped with Dialogic boards for specific instructions on configuring each card.

Table 2-3: Jump Board Configuration

Configuration	Board	Address	IRQ	JP7
Four-Port with 1 Dialog/4	1 Dialog/4	D0000	5	Installed
Eight-Port with 2 Dialog/4	1-Dialog/4	D1000	5	Installed
	2-Dialog/4	D2000	5	Removed
Twelve-Port with 3 Dialog/4	1-Dialog/4	D0000	5	Installed
	2-Dialog/4	D2000	5	Removed
	3-Dialog/4	D4000	5	Removed
Sixteen-Port with 4 Dialog/4	1-Dialog/4	D0000	5	Installed
	2-Dialog/4	D2000	5	Removed
	3-Dialog/4	D4000	5	Removed
	4-Dialog/4	D6000	5	Removed
Four-Port with Four-Port Fax	1-VFX 40ESC plus	D0000	7	Installed
Eight-Port with Four-Port Fax	1-Dialog/4	D0000	5	Installed
	1-VFX 40ESC plus	D2000	7	Installed
Eight-Port with Eight-Port Fax	1-VFX 40ESC plus	D0000	5	Installed
	2-VFX 40ESC plus	D2000	5	Removed
Twelve-Port with Four-Port Fax	1-Dialog/4	D0000	5	Installed
	2-Dialog/4	D2000	5	Removed
	1-VFX 40ESC plus	D4000	7	Installed
Twelve-Port with Eight-Port Fax	1-Dialog/4	D0000	5	Installed
	1-VFX 40ESC plus	D2000	7	Installed
	2-VFX 40ESC plus	D4000	7	Removed
Twelve-Port with Twelve-Port Fax	1-VFX 40ESC plus	D0000	7	Installed
	2-VFX 40ESC plus	D2000	7	Removed
	3-VFX 40ESC plus	D4000	7	Removed

Phone Line Assignments -- Boards are assigned phone lines as follows:

- ❑ The board with the lowest address is designated as the first board in the system and is assigned phone lines one through four.
- ❑ The next lowest address is the second board in the system and contains lines five through eight.

PathFinder can have up to eight model Dialog/4 voice cards.

Potential Conflicts -- In some PCs, a memory address conflict occurs between voice card(s) and other add-on hardware components (such as a tape drive controller card, ESDI or SCSI disk controller card, network adapter card and the like).

Telephony Hardware Installation

After all the jumper and switch settings are configured properly, install the voice card(s) in the PC.



Do not attempt to install the voice cards without configuring them first!

PC Preparation

1. Place the PC in an easily accessible area.
2. Turn the power off and disconnect the AC power cord on the PC from the wall socket.
3. Unplug any other cables from the PC including any peripheral device cables.
4. Remove the cover according to the manufacturer's instructions, and store the cover fasteners in a safe place.

Physical Board Installation



Use an anti-static wrist strap and, if possible, an anti-static floor mat when installing voice cards.

1. Remove the screw that secures the expansion slot cover and remove the cover.
2. Insert the board into an available ISA slot on the motherboard, using care not to apply excessive pressure on any of the components. Ensure that the modular jacks face the back of the PC.
3. Gently press on the edge of the board and the bracket to securely seat it in the slot. Rocking the board forward and backward while applying pressure on its top edge helps seat it properly.
4. Align the notch in the board's bracket with the hole in the rear panel of the PC. Fasten it into place with the screw that was removed in Step 1.



Do not put the cover back on the PC without securely fastening the voice card to the chassis. Severe damage to the card could result if it is operated without being securely fastened to the PC chassis!

Telephone Connection

Four-line voice cards (Dialog/4 models) use standard two-line RJ-14 modular jacks to connect to the phone system. The RJ-14 jacks on the four-line cards support two telephone lines or extensions per jack.

On the VFX 40ESCplus, each RJ-11 jack on the rear bracket of the voice board supports a single voice channel. Use RJ-11 connectors and phone cable to connect each voice channel jack to a PBX or Central Office (CO).

Telephone connections are located on the right side of the four-line voice card. When connecting phone lines to four-line cards, follow these steps:

1. With the board components face up and the jacks on the right side, connect lines one and two to the top connector.
2. Connect line three and four to the bottom connector.



Lines one and three are inside pairs, and lines two and four are outside pairs.

Voice Network Attachment

PathFinder is flexible in the way it can be incorporated into the telephone network or telephone system of most locations. When considering how to attach the system, you should keep the following concerns in mind:

- ❑ Accessibility for maintenance and administration
- ❑ Type of connection needed between *PathFinder* and the phone system or host
- ❑ The need to handle a variety of voice processing functions

Direct Attachment to the Central Office

In this configuration, *PathFinder* is connected directly to the telephone company's central office. Users can reach *PathFinder* by dialing directly. This common setup is used with toll-free access to an information hotline.

However, with this configuration, *PathFinder* is unable to transfer callers to other extensions. Since *PathFinder* is connected directly to the central office (in front of the phone system), there is no way to transfer to an operator or other person for assistance. The one exception is a *Centrex/Essex* connection.

PathFinder can be connected to the central office using any of the following lines.

Analog Line -- Analog lines are standard telephone transmission lines that use an RJ-14 connector.

Centrex/Essex Line -- A Centrex/Essex line is a business telephone service offered by a local telephone company from a local central office. Centrex lines, like a PBX, provide such features as call transfer, call forwarding, call hold, and others, and they use an RJ-14 connector.

PBX Attachment

In the PBX (Private Branch Exchange) configuration, *PathFinder* is attached to the phone system through single line extension ports. This provides the greatest flexibility for running *PathFinder* modules.

PathFinder must be configured this way to process call transfers.

Incoming calls are routed through the phone system and are answered in one of three ways:

- ☐ Answered by a live operator, and then transferred to *PathFinder*
- ☐ Answered directly by *PathFinder*
- ☐ Routed to *PathFinder* only if an extension is busy or does not answer

Connect *PathFinder* to a PBX using any of the following lines.

Analog Line -- Your phone system must support analog (single-line) telephone sets with hunt group capability. In a hunt group, if one line is busy the PBX can roll the call over to the next line in the group. An analog line uses an RJ-14 connector. In addition, the analog telephones must have the following features:

- ☐ Flash-hook transfer
- ☐ Dial-out
- ☐ Place call on hold
- ☐ Re-connect
- ☐ Loop current disconnect

Proprietary Connections -- Many phone systems have proprietary connection methods that require a special card to access their integration features. These include the SL1, NorStar, NEC, and Mitel switches. The type of connector used depends on the phone system.

If a PBX integration was purchased with *PathFinder*, refer to [Chapter 3, Phone System Integration and Setup](#) for specific information on attaching your telephone system to *PathFinder*.

Software Security Key

Included with *PathFinder* is a software security key. It is designed to unlock the various optional features of *PathFinder*.



PathFinder will not function properly if the security key hardware is not installed.

The security key hardware resembles a male/female parallel connector that plugs into the parallel port on the back of the PC. If you have a parallel printer or other device attached to that port:

1. Remove the printer cable from the PC port, if attached.
2. Install the security key hardware on the printer port.
3. Attach the printer to the software key (in other words, re-attach the printer to the PC through the software key).



*If attaching a printer to the software key, any errors from the printer (e.g., out of paper or off-line) may cause **PathFinder** to go offline.*

Install and Configure Operating System

This section covers installing and configuring your Windows NT® or Windows 2000 operating system.

Before you can install the **PathFinder** software, you must install and configure the operating system in order to optimize conditions for running **PathFinder**. This configuration procedure installs and activates the Streams Environment and TCP/IP.

Installation

To install your operating system, follow the installation instructions provided by the operating system provider. For example, to install Windows NT® or Windows 2000, follow the instructions provided by Microsoft®.

Configuration

Before installing the **PathFinder** software, you must optimize your PC operating system for running **PathFinder**. This overall procedure consists of the following tasks:

- ❑ Setting up a Windows administrator account
- ❑ Configuring the operating system for automatic logon
- ❑ Installing and activating the Streams Environment and TCP/IP

Log On

Log On - Windows NT

To set up a Windows NT administrator account, perform the following steps:

1. From the *Start* menu, select Programs > Administrative Tools > User Manager.
2. From the *File* menu, select User > New User.
3. In the *Username* field, type PathFinder.
4. In the *Password* field, type the serial number for your *PathFinder* software.
5. Clear the **User must change password at next logon** check box
6. Select the **Password never expires** check box
7. Click on the **Groups** button, and select **Administrators** in the right pane.
8. Click **Add**.
9. Click **OK**.
10. Click **OK**.
11. Click the **Close** button in the upper-right corner to close the window.

Log On - Windows 2000

To set up a Windows 2000 administrator account, perform the following steps:

1. From the *Start* menu, select Settings > Control Panel.
2. Double-click **Users and Passwords Control Panel**.
3. Click Advanced tab.
4. Click Advanced button.
5. Click Users Folder in left explorer window pane.
6. Click Action > New User...
7. Type `Pathfinder` in the Username field.
8. In the *Password* field, type the serial number for your *PathFinder* software, then re-enter the serial number a second time in the Confirm P/W field.
9. Clear the **User must change password at next logon** check box.

10. Select the **Password never expires** check box.
11. Click Create.
12. Click Close.
13. Click Groups Folder in the left explorer window pane.
14. Double-click Administrators group in the right explorer window pane.
15. Click Add...
16. Select the local domain in the look-in bar, if not already selected.
17. Double-click the **Pathfinder** account.
18. Click **OK**.
19. Click **OK**.
20. Close the Local Users and Groups window.
21. Click **OK** on Users and Passwords window.

Automatic Administration Logon



Create an Emergency Repair Disk before creating the Automatic Administration Logon account.

It is highly recommended that you set up the system to automatically log on to Windows. If you do not create an Automatic Administration Logon account, the system may not function correctly when shut down unexpectedly.

Auto Log On - Windows NT

To allow the system to automatically log on to Windows NT[®] each time the system reboots, do the following:

1. From the *Start* menu, select Run.
2. In the *Open* field, type `Regedt32`, then click **OK**.
3. Select **HKey_Local_Machine**.
4. Double-click **Software**.
5. Double-click **Microsoft**.
6. Double-click **Windows NT**.
7. Double-click **Current Version**.
8. Double-click **Winlogon**.

-
9. Double-click **DefaultUserName**.
 10. Type in the username you created in *"Log On - Windows NT" on page 2-15*, then press **Enter** when you finish typing.
 11. Click **Edit**.
 12. Choose **Add Value**.
 13. In the *Value Name* field, type `DefaultPassword`, then press **Enter** when you finish typing.
 14. In the *String* field, type the password for the user name you created in *"Log On - Windows NT" on page 2-15*, then press **Enter** when you finish typing.
 15. Click **Edit/Add Value**.
 16. In the *Value Name* field, type `AutoAdminLogon`, then press **Enter** when you finish typing.
 17. In the *String* field, type `1`, then press **Enter** when you finish typing.
 18. Click the **Close** button in the upper-right corner to close the window.

Auto Log On - Windows 2000

To allow the system to automatically log on to Windows 2000 each time the system reboots, do the following:

1. From the *Start* menu, select *Run*.
2. In the *Open* field, type `Regedt32`, then click **OK**.
3. Select `HKey_Local_Machine/Software/Microsoft/Windows NT/Current Version/Winlogon/DefaultUserName`.
4. Type in the username (*Pathfinder*) that you created in *"Log On - Windows 2000" on page 2-15*, then press **Enter** when you finish typing.
5. Click **Edit**.
6. Choose **Add Value**.
7. In the *Value Name* field, type `DefaultPassword`, then press **Enter** when you finish typing.
8. In the *String* field, type the password for the user name you created in *"Log On - Windows 2000" on page 2-15*, then press **Enter** when you finish typing.
9. Double-click **AutoAdminLogon**.
10. Change the value to `1`, then click **OK**.

11. Double-click **DefaultDomainName** and verify that the value is the name of the local domain or the desired logon domain. Change it if necessary, then click **OK**.
12. Click **OK**.
13. Close Regedt32 .

Install Adapter



If you have a network adapter card (NIC) in your system, confirm that it is properly configured and operates within normal parameters (If an NIC is installed, you must enable TCP/IP protocol). Then, you must skip this "Install Adapter" procedure and proceed instead to the "Install Streams Environment" procedure.

To set up a network adapter, perform the following steps:

Install Adapter - Windows NT

1. From the *Start* menu, select Settings > Control Panel.
2. Double-click on the *Network* icon.
3. When prompted to install Networking, click **No**.
4. In the *Network Settings* window, click on the **Adapters** tab.
5. Click **Add**.
6. Select **MS Loopback Adapter** from the *Network Adapters* window.
7. When prompted for the frame type, select the default **802.3**, then click **OK**.
8. When prompted for the location of the NT Distribution Files, type or browse to select the location. Click on **Continue**, then follow the on-screen instructions.
9. When installation is complete, the *Network Settings* window displays. Click **OK** to add the adapter information to the Registry.
10. When prompted to restart, select **Don't Restart Now**.

Install Adapter - Windows 2000

1. From the *Start* menu, select Settings > Control Panel.
2. Double-click **Add/Remove Hardware**.
3. Click **Next**.
4. Select **Add/Troubleshoot Device**, then click **Next**.

5. Select **Add New Device**, then click **Next**.
6. Select **No, I want to select the hardware from a list**, then click **Next**.
7. Select **Network Adapters**, then click **Next**.
8. Select **Microsoft** in the left window pane, select **Microsoft Loopback Adapter** in the right window pane, then click **Next**.
9. Click **Next**.
10. Click **Finish**.

Install Streams Environment

Install Streams - Windows NT

To set up the streams environment when using Windows NT, perform the following steps:

1. Double-click on the **Network** icon. When prompted to install Networking, click **No**.
2. Click on the **Protocol** tab.
3. Click **Add**.
4. In the window that displays, click on the down arrow to the right of the **Apple Talk Protocol** entry for a list of choices. Select **Streams Environment**, then click **Continue**.
5. When prompted for location of NT Distribution Files, type or browse to select location. Click **Continue**, then follow on-screen instructions.
6. When returned to the *Network Settings* dialog box, select **Add**.
7. In the window that displays, click on the down arrow to the right of the **Apple Talk Protocol** entry for a list of choices. Select **TCP/IP Protocol and Related Components**, then click on **Continue**.
8. Click **OK**, and the *TCP/IP Configuration* window displays.
9. Enter the IP address:
 - ☐ If you are on a network, enter the IP Address, Subnet Mask, and Default Gateway supplied by your network administrator.
 - ☐ If you are on a standalone system, type the following values:
IP Address: 128 . 0 . 0 . 1
Subnet Mask: 255 . 255 . 255 . 0
10. When installation is complete, the *Network Settings* window displays.

11. Click **OK** to add the Streams Environment and TCP/IP to the Registry.
12. When prompted if you want to restart, select **Restart Now**.
13. After restarting, check the Event Viewer to make sure that all network drivers and protocols loaded properly.

After the restart, the adapter and/or Streams Environment are installed and ready for operation. You can now continue with *PathFinder* installation.

Install Streams - Windows 2000

When networking software is installed via the Windows 2000 operating system, the streams environment is automatically configured.

Install *PathFinder* Software

You will install *PathFinder* software from the installation CD. You must also install helper applications, such as Adobe® Acrobat Reader® and Dialogic drivers.

Prerequisites & Preparation

Before you attempt to install the *PathFinder* software, ensure that you perform the following tasks:

- ❑ Install the software key and install and configure the voice cards. (Refer to *"Install and Configure Hardware" on page 2-5* for details.)
- ❑ Install and configure Windows NT® for Streams service, if using Windows NT. (Refer to *"Install and Configure Operating System" on page 2-14* for details.) Windows 2000 installs streams automatically.

Once you have performed these tasks, you are ready to install *PathFinder* software.



*Do not run other applications on the voice processing machine. If you do, *PathFinder* may react erratically.*

Dialogic Drivers

Any new *PathFinder* installation requires the Dialogic drivers installation.

If you are upgrading an existing *PathFinder* application, you must first disable and uninstall the existing drivers to install the new Dialogic drivers.

Sentinel Drivers

It is recommended that you always install or upgrade the sentinel drivers. This ensures that the latest drivers are always loaded. Existing drivers do not need to be uninstalled prior to installation.

PBXpert

If you have a non-standard PBX, this utility can train *PathFinder* for your phone system by learning tones such as busy, ringback, disconnect, etc. This program operates only on Windows NT® 4.0 or higher.

Software Installation

To install the software required for *PathFinder* operation, follow these steps.



Each option in the setup menu has a dialog box at the bottom of the screen that provides more information about that option.

Install *PathFinder* Software

Install Pathfinder Software - Windows NT

1. Make sure the software key is installed. Refer to [“Software Security Key” on page 2-13](#) for more information.
2. Insert the *PathFinder* CD into your CD-ROM drive.
3. From the *Start* menu, select **Run . . .**.

4. In the *Open* field, type <Your CD-ROM Drive Letter>:\setup.exe and click on **OK**.

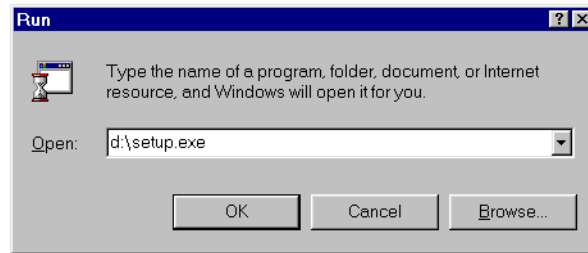


Figure 2-2: Run Window

5. In the *Welcome* window, click **Next**.
6. Read the *Software License Agreement*, then click **Yes** at the end of the document.
7. Select **Components**.
8. Click **All** to select all, then click **Next**.
9. Select *PathFinder* Server Components. If *PathFinder* server is selected, you are prompted to select which of the *PathFinder* components you would like to install.
10. Select only the options that apply or are specified in the order, and click on **Next** to continue.
11. Indicate the destination folder as **C:\HELLONT** (if the installation is an upgrade) or **C:\PathFinder** (if the installation is new), then click **Next** to continue.
12. Indicate the program folder of *PathFinder*, then click **Next** to continue.
13. Click **Next** to acknowledge that you have enough information to continue.
14. For Startup folders, click **All** to select all, then click **Next** to continue.
15. To continue, click **Next**.

PathFinder documentation may be available as a Portable Document Format (PDF) file, which can be read using Adobe® <Default Paragraph Font> Acrobat Reader™. When selecting options from the *Setup* menu, clearing all options except this one automatically installs Acrobat Reader.

16. Read the *Acrobat Licensing Agreement*, then click **Yes** at the end of the document.
17. Indicate a destination directory of C:\Acrobat4\Reader.
18. Clear the **Display Acrobat Reader 4.0 Readme file** check box, then click **Finish**.
19. Click **OK** to continue.
20. Click **Next** in the *Installation Successful* window.

To complete software installation:

21. Save changes and exit.
22. Click **OK**.
23. Select Configuration Programs.
24. Check and activate **Codekey Manager** and **MAINT**, then click on **Next**.
25. If the information matches, close Codekey Manager.



The Codekey Manager program allows you to view the options that the sentinel allows. It also provides the capability to add new features to *PathFinder*.

- ☐ If you are installing *PathFinder* for the first time, it is not necessary to change anything in the Codekey manager.
- ☐ If this is a *PathFinder* upgrade, Codekey manager must unlock features in order for you to use them. Contact your dealer for further information.

*Install **Pathfinder** Software - Windows 2000*

1. Make sure the software key is installed. Refer to *"Software Security Key" on page 2-13* for more information.
2. Insert the **PathFinder** CD into your CD-ROM drive.
3. From the *Start* menu, select **Run . . .**
4. In the *Open* field, type <Your CD-ROM Drive Letter>:\setup.exe and click **OK**. (Example: CD-ROM drive letter = E, type E:\setup.exe)
5. In the *Welcome* window click **Next**. (If dialogic drivers were installed in a previous installation attempt, skip to Step 10)
6. Windows 2000 will inform you that Dialogic drivers have not been installed. Click **Next** to install the drivers. The installation will continue automatically.
7. Select **Yes, I want to restart my computer now**.
8. Click **Finish**.
9. After computer restarts, begin at step 1 again.
10. Select **Skip Dialogic driver install**, then click **Next**.
11. Click **Yes**.
12. Click **Next** to check Sentinel Driver installation.
13. Click **Next** (do not select **First, Run codekey manager**).
14. Select each item to install (recommend selection of all components).
15. Click **Next** to select the default destination folder.
16. Click **Next** to select the default program folder for **PathFinder**.
17. Click **Next** to acknowledge that you have enough information to continue.
18. For startup folders, click **All** to select all, then click **Next**.
19. Click **Next** to install Adobe Acrobat 4.0.



***PathFinder** installer window is in the background. Ignore this during the Acrobat installation.*

20. Click **Next** in the Setup window.
21. Click **Next** to select the Default destination folder.

22. Click **OK** in the information window.
- To complete software installation:
23. De-select MAINT, then click **Next**.
24. Select either **YES** or **NO**, regarding the option to view the release notes.
25. Click **OK**.
26. Click **Finish**.

Configure Dialogic Software & PBXpert

This section covers configuration of Dialogic software and PBXpert. For *PathFinder* to work properly, you must configure the Dialogic software to match the installed Dialogic hardware.

PBXpert allows the voice processing boards to learn the ring back, busy, do not disturb, and other tones relevant to voice processing. This software learns the tones and creates a tone set file for your telephone system. PBXpert configuration involves walking through a Wizard program.

Dialogic Software

After *PathFinder* software has been installed, the *Start* menu contains a Dialogic program group, which contains the following items:

Advanced Tone Features -- Allow you to determine which tone set file to use.

Dialogic Configuration Manager (DCM) -- Allows you to configure the software to match your hardware settings for the voice processing boards. Configures the software to recognize the Dialogic hardware.

Country-Specific Configuration -- Allows you to configure your voice processing board (Dialogic hardware) for a particular country outside the United States.

PBXpert -- Allows the voice processing boards to learn the ring back, busy, do not disturb, and other tones relevant to voice processing. Learns the tones and creates a tone set file for telephone systems.

Release catalog -- Contains Dialogic release notes and information on how to contact Dialogic technical support.

Set Dialogic Service Startup Mode -- Determines how the Dialogic service is started by the Windows 2000/Windows NT[®] operating system. Defines when the Dialogic service should be started.

Uninstall -- Completely removes the Dialogic system software from your PC.

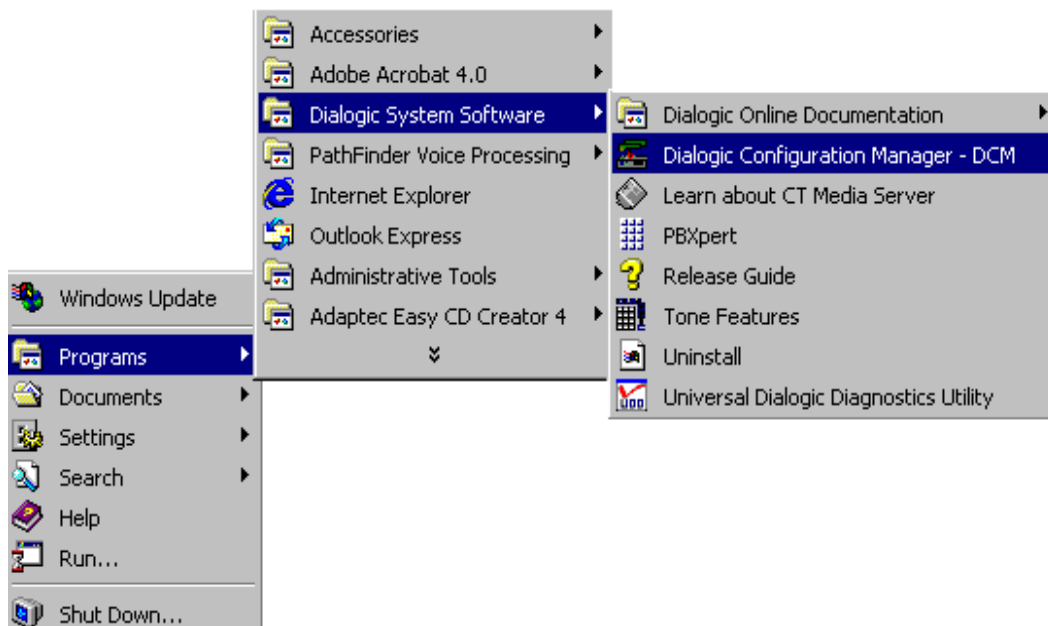
Universal Dialogic Diagnostic Utility (UDDU) -- Allows you to run tests on your voice board to determine the integrity of the board.

Configuration

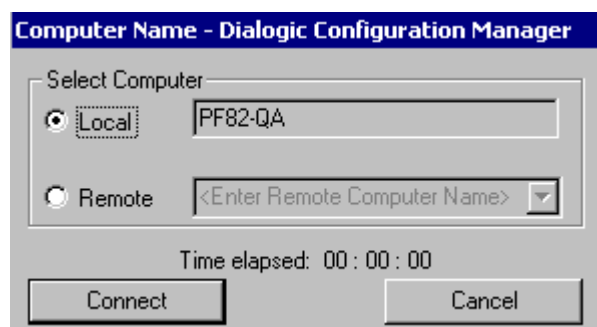
For *PathFinder* to work properly, you must configure the Dialogic software to match the installed Dialogic hardware. Please note that the Dialogic software may not work properly until the Streams Environment has been installed. Refer to *[“Install Streams Environment” on page 2-19](#)*.

Dialog/4

1. From the *Start* menu, select Programs > Dialogic System Software > Dialogic Configuration Manager - DCM.

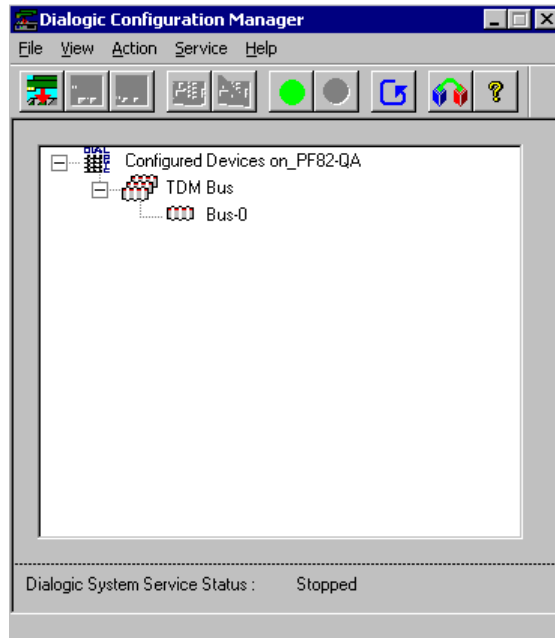


The following window displays:

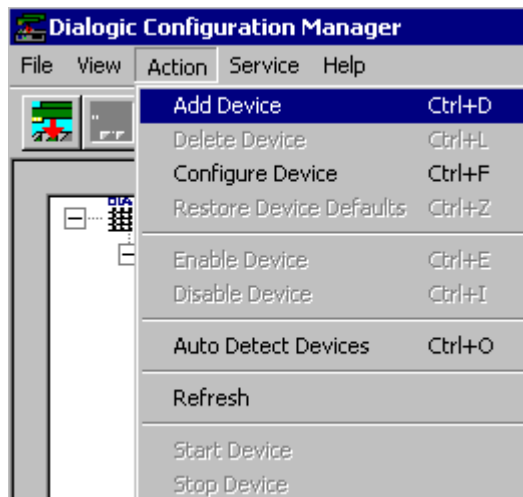


2. Click **Connect**.

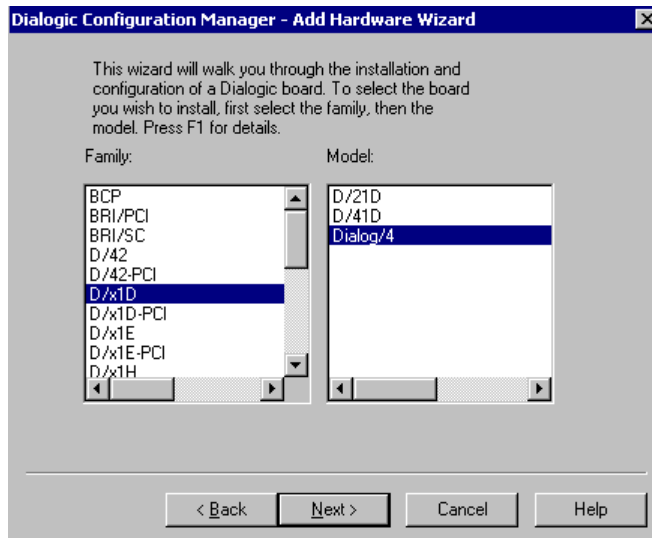
The Dialogic Configuration Manager window appears:



3. Select Action > Add Device, as shown below:

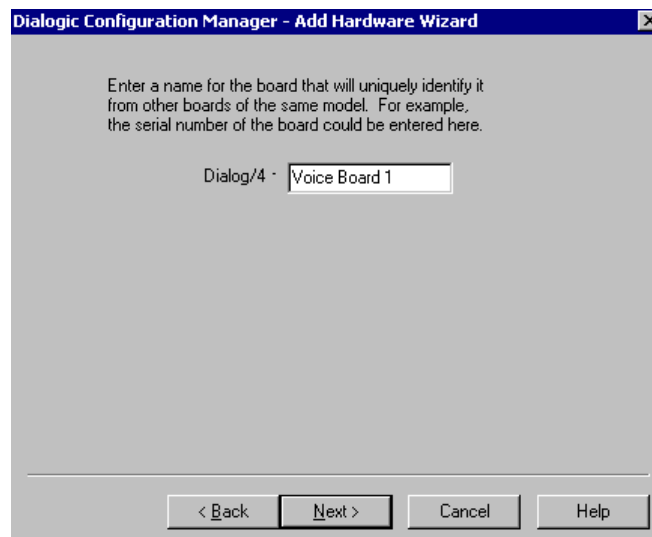


The Add Hardware Wizard window displays:



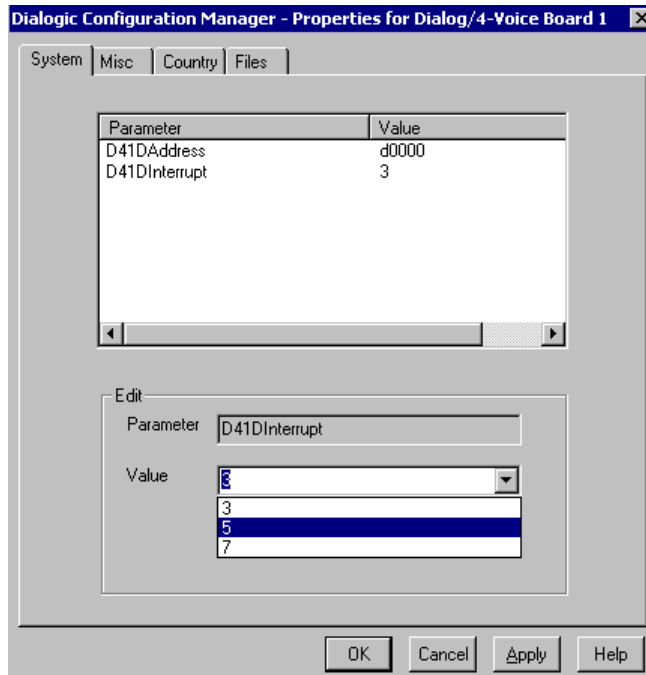
4. Select D/x1D in the left pane and Dialog/4 in the right pane, then click **Next**.

The following window displays:



5. Type a name to identify the board (e.g., Voice Board 1, as used in the previous illustration), then click **Next**.

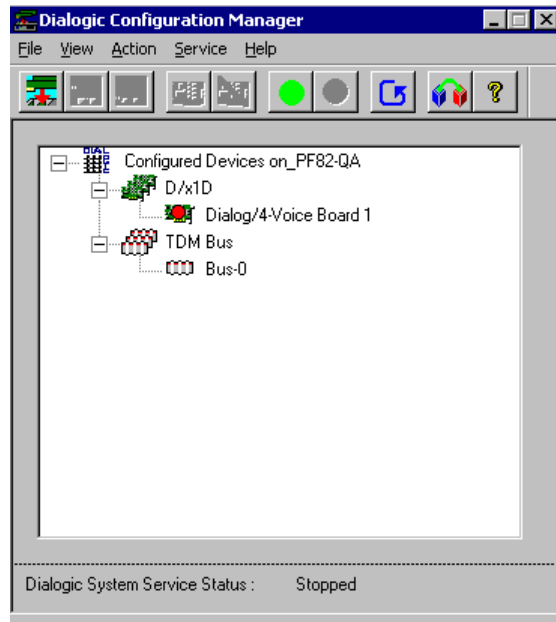
The following displays:



The system will reflect the lowest interrupt possible in the upper pane of the window at the System tab. In this example, 3 is the default interrupt value.

6. Change the interrupt value to match the hardware IRQ setting. Refer to [Table 2-3](#) and [Figure 2-1](#). Generally, you will use IRQ 5. If IRQ 5 is not available, then use IRQ 7.

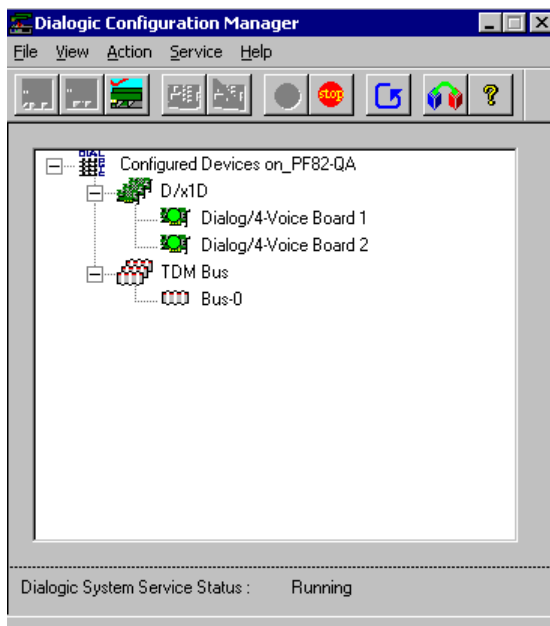
7. Click **OK** and the following window displays:



The Dialog/4-Voice Board 1 is shown under D/x1D. Its icon has a superimposed red dot and the message at the bottom of the window indicates that the card has not been started.

8. The board configuration is complete. If you have multiple Dialog/4 cards, repeat this procedure starting at step 3 until all cards are configured.
9. To start the dialogic boards, click on the *Start Service* icon in the toolbar (identified by the green dot). A brief indication will appear in the upper right of your desktop display to show the progress of the dialogic services being loaded/started. When complete, the superimposed red dot changes to green, the green icon in the toolbar is grayed out, and the bottom of the window reflects Dialogic System Service Status: Running.

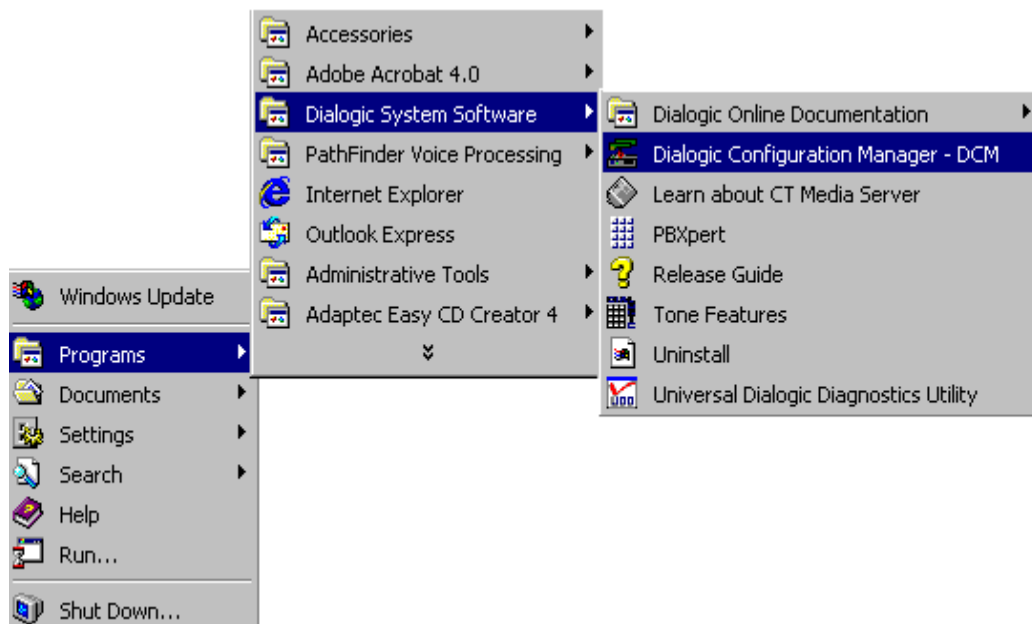
The illustration below shows that two dialogic cards are configured and running.



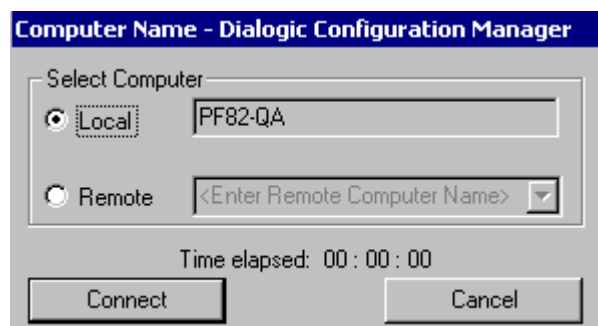
10. Click File > Exit, then reboot to load dialogic drivers.

VFX40ESC plus

1. From the *Start* menu, select Programs > Dialogic System Software > Dialogic Configuration Manager - DCM.

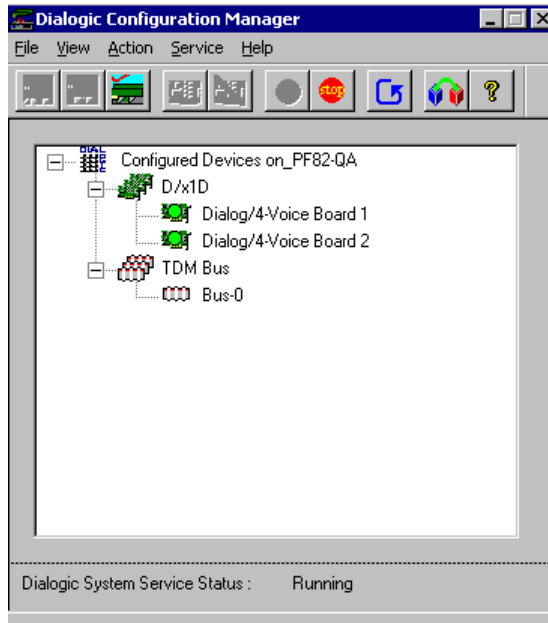


The following window displays.



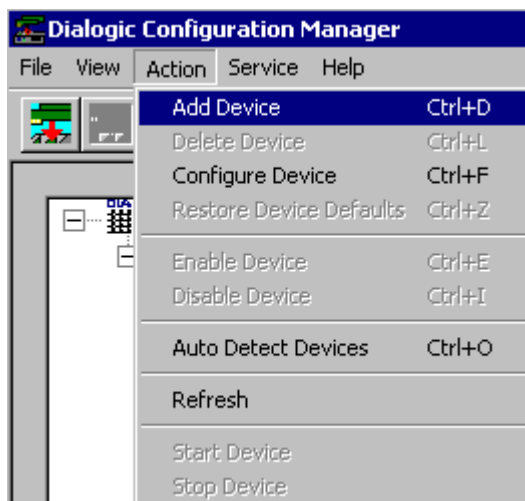
2. Click **Connect**.

The Dialogic Configuration Manager window appears:



3. Click on the *Stop Service* icon in the toolbar (red stop sign).

4. Select Action > Add Device, as shown below:

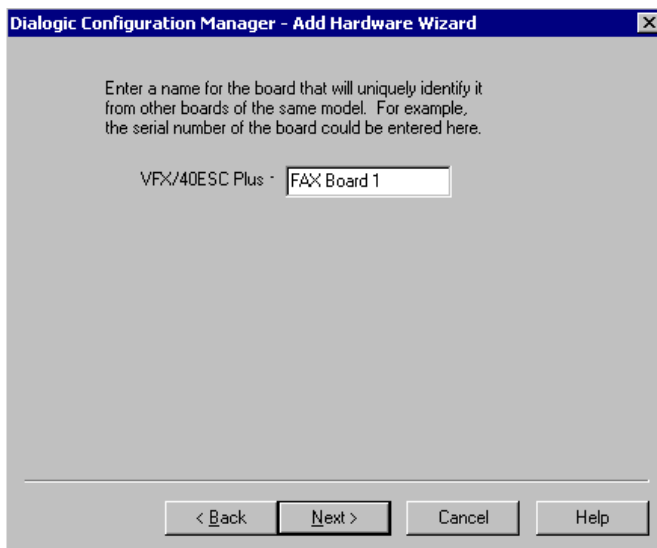


The Add Hardware Wizard window displays:



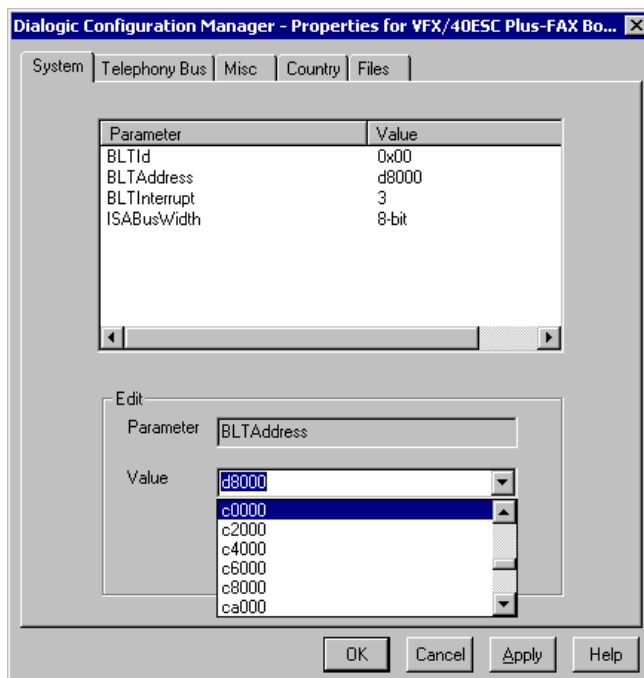
5. Select VFX in the left pane and VFX/40ESC Plus in the right pane, then click **Next**.

The following window displays:



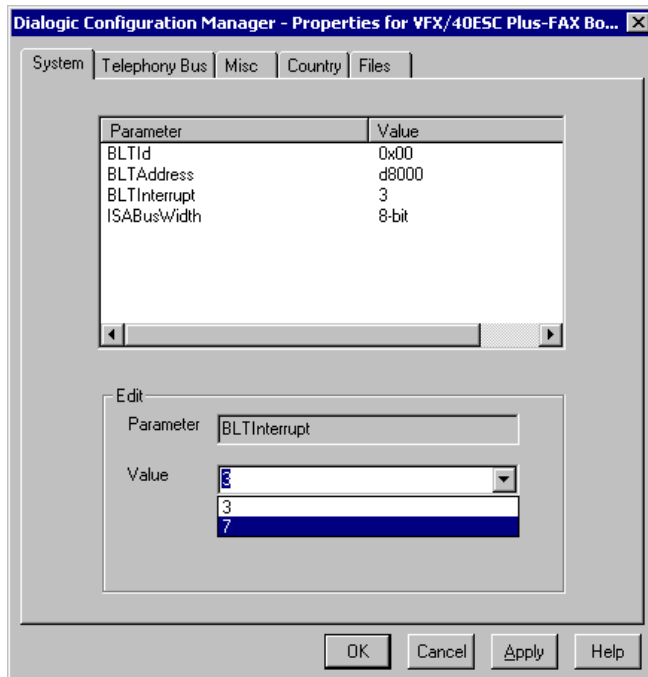
6. Type a name to identify the board (e.g., Fax Board 1, as used in the previous illustration), then click **Next**.

The following displays:

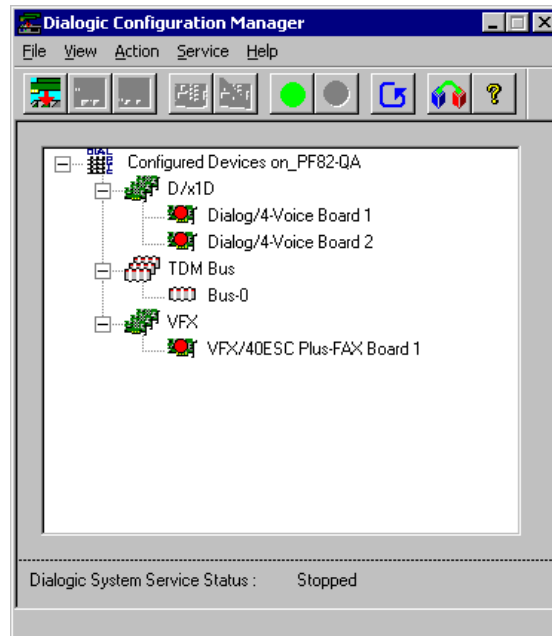


7. Highlight the BLT Address parameter, then use the dropdown menu to select a base memory address value of c0000.

8. Highlight the BLT Interrupt parameter, then use the dropdown menu to select the interrupt value to match the hardware IRQ setting. Refer to [Table 2-3](#) and [Figure 2-1](#) . Generally, you will use IRQ 7.



9. Click OK and the following window displays:



The VFX/40ESC Plus - Fax Board 1 is shown under VFX. Its icon has a superimposed red dot and the message at the bottom of the window indicates that the card has not been started.

10. The board configuration is complete. If you have multiple VFX cards, repeat this procedure starting at step 4 until all cards are configured.
11. To start the dialogic boards, click on the *Start Service* icon in the toolbar (identified by the green dot). A brief indication will appear in the upper right of your desktop display to show the progress of the dialogic services being loaded/started. When complete, the superimposed red dot changes to green, the green icon in the toolbar is grayed out, and the bottom of the window reflects Dialogic System Service Status: Running.

Upgrading From Previous Version

If you are upgrading from a previous version of *PathFinder*, you must uninstall the previous version of Dialogic software. To remove the older version of software, please follow these steps:

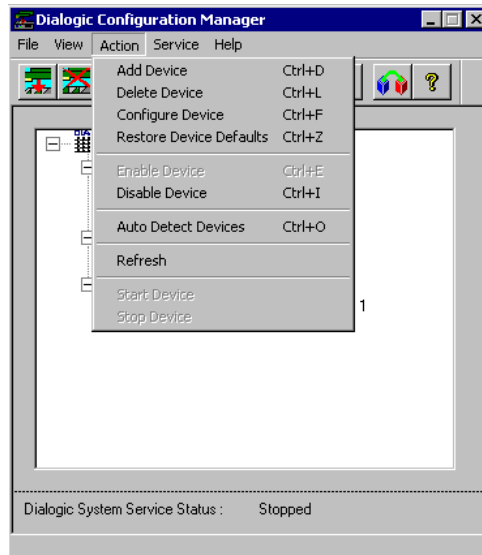
1. Locate the DIALOGIC.CFG file. The default location is \DLGCDEV\DIALOGIC\CFG.
2. Copy the DIALOGIC.CFG to a floppy diskette.
3. Uninstall the existing version of the Dialogic System Software.
4. Install the new version of the Dialogic System Software.
5. Copy the DIALOGIC.CFG from the floppy to the \DLGCDEV\DIALOGIC\CFG directory.

Removing a Board

To remove a board from the configuration, follow these steps:

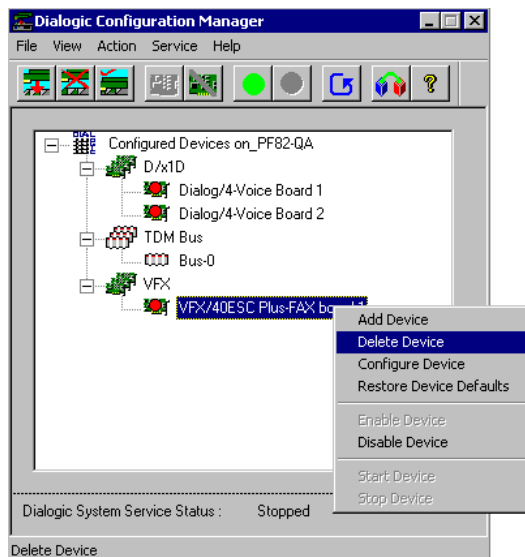
1. From the *Start* menu, select Programs > Dialogic System Software > Dialogic Configuration Manager - DCM.
2. Click on the *Stop Service* icon in the toolbar (red stop sign).
3. Highlight the board to be removed.

4. Select Action > Delete Service,



-or-

Right-click on the board and choose Delete Device.



Exiting Configuration Utility

To exit the board configuration utility:

Select File > Exit.

PBXpert



You only need to configure PBXpert if you are using supervised transfers AND you are not running on a phone system that appears in the certified list.

To configure PBXpert, you need the following:

- ☐ Telephone system with 2 analog lines plugged into the Dialogic boards and extension numbers for those ports
- ☐ Dialogic voice board loaded into the PC with the memory address and IRQ configured correctly
- ☐ **PathFinder** software installed
- ☐ Dialogic drivers installed
- ☐ PBXpert software installed

Follow these steps to configure PBXpert:

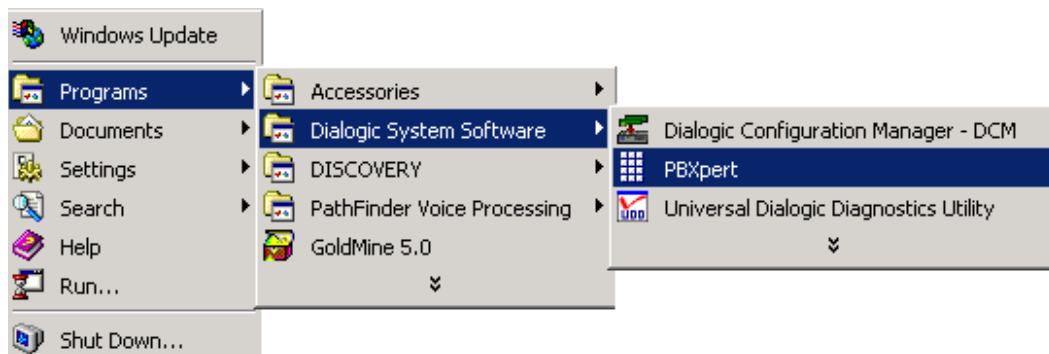
Start Up Mode

Before running the PBXpert Wizard, the Dialogic drivers need to be started. Either run the **PathFinder** Engine and then stop the **PathFinder** Engine, or perform the following steps:

1. Select from the *Start* menu Programs > Dialogic System Software > Dialogic Configuration Manager - DCM.
2. Click on the *Start Service* icon in the toolbar (identified by the green dot).

PBXpert Wizard

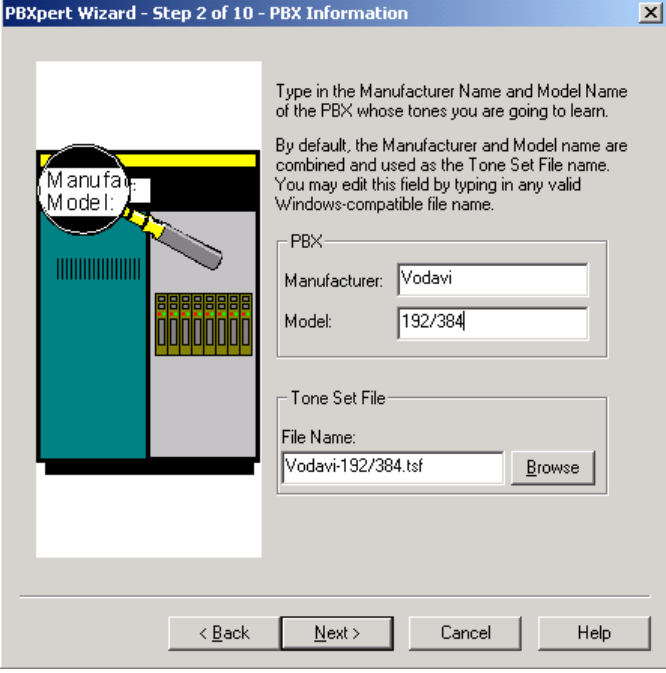
1. Select from the *Start* menu Programs > Dialogic System Software > PBXpert.



2. The PBXpert Wizard displays.



3. Click **Next**.



The image shows a screenshot of the 'PBXpert Wizard - Step 2 of 10 - PBX Information' dialog box. On the left, there is a graphic of a PBX system with a magnifying glass over the 'Manufacturer' and 'Model' labels. The main text area contains instructions: 'Type in the Manufacturer Name and Model Name of the PBX whose tones you are going to learn.' and 'By default, the Manufacturer and Model name are combined and used as the Tone Set File name. You may edit this field by typing in any valid Windows-compatible file name.' Below this, there are two input sections. The 'PBX' section has 'Manufacturer:' with the text 'Vodavi' and 'Model:' with the text '192/384'. The 'Tone Set File' section has 'File Name:' with the text 'Vodavi-192/384.tsf' and a 'Browse' button. At the bottom, there are four buttons: '< Back', 'Next >', 'Cancel', and 'Help'.

PBXpert Wizard - Step 2 of 10 - PBX Information

Type in the Manufacturer Name and Model Name of the PBX whose tones you are going to learn.

By default, the Manufacturer and Model name are combined and used as the Tone Set File name. You may edit this field by typing in any valid Windows-compatible file name.

PBX:

Manufacturer: Vodavi

Model: 192/384

Tone Set File

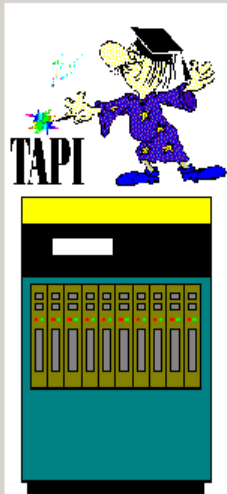
File Name: Vodavi-192/384.tsf

< Back Next > Cancel Help

4. Type in the PBX Manufacturer and PBX Model number. The Tone Set file name is created automatically from the Manufacturer and Model number.

5. Click **Next**.

PBXpert Wizard - Step 3 of 10 - TAPI Information



Select the TAPI PBX Strings database name to merge into this tone set. Select (none) if no merging is desired.

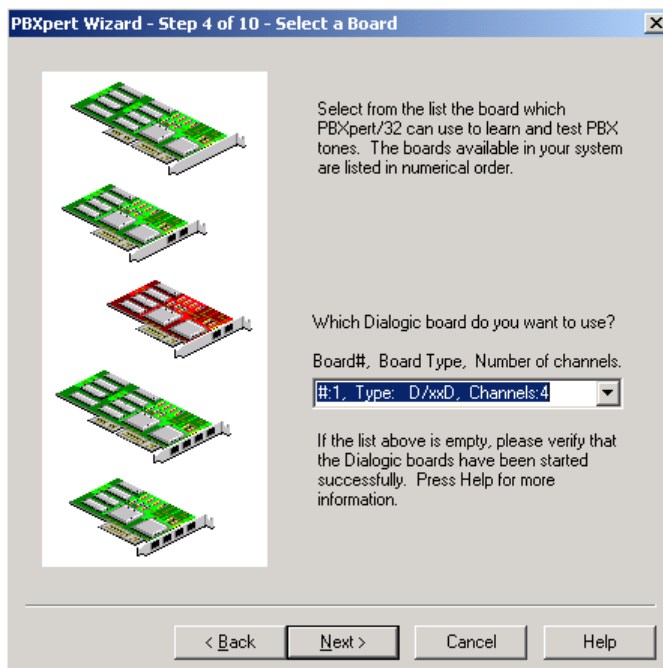
(none)

PBX Strings

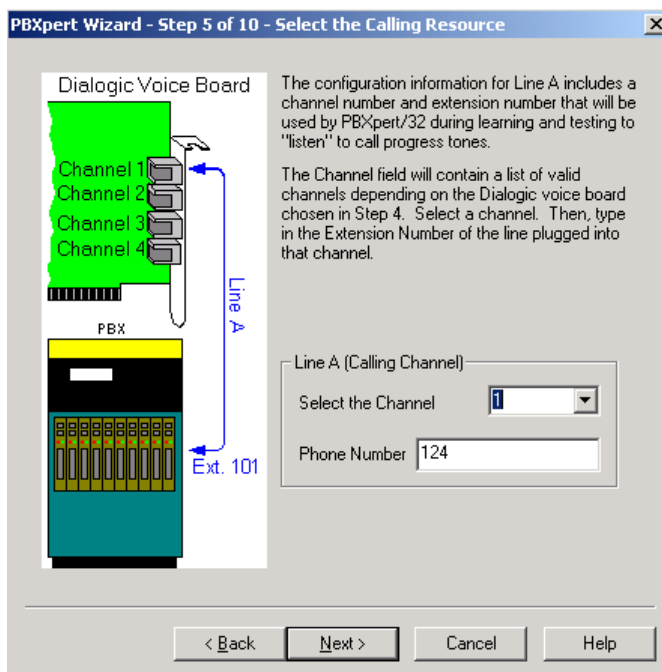
Forward:	
Unforward:	
Park:	
Unpark:	
Pickup:	
Secure:	

< Back Next > Cancel Help

6. Leave the TAPI PBX strings set to **None**. Click **Next**.

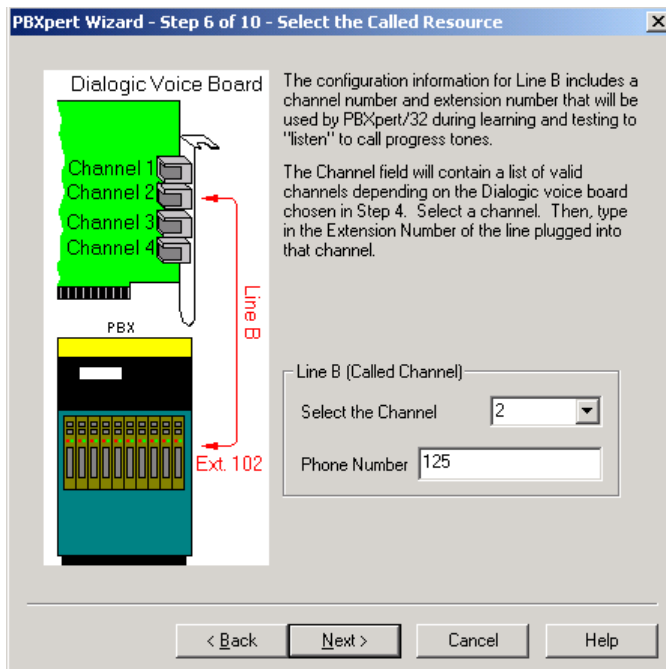


7. Choose the Dialogic Board Type to match the board you are going to use for testing, then click **Next**.

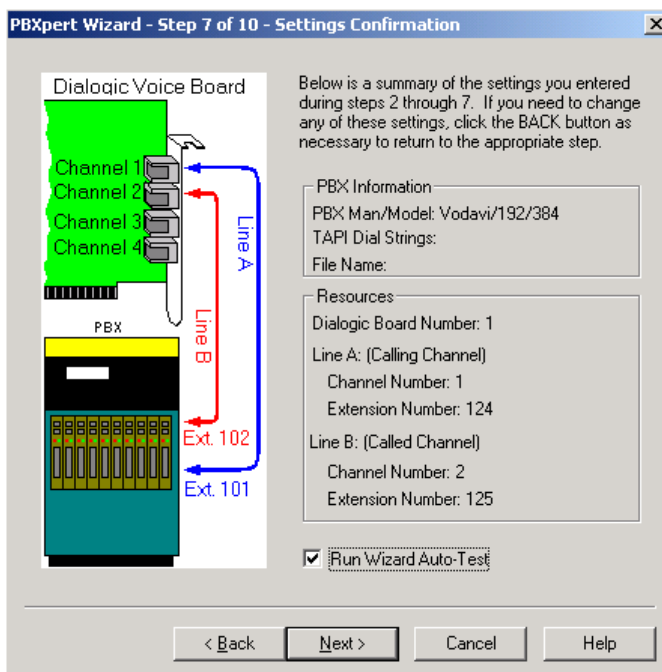


8. Select the first channel to use for testing.
9. Type in the extension number that this channel is using.

10. Click **Next**.



11. Select the second channel to use for testing.
12. Type in the extension number that this channel is using.

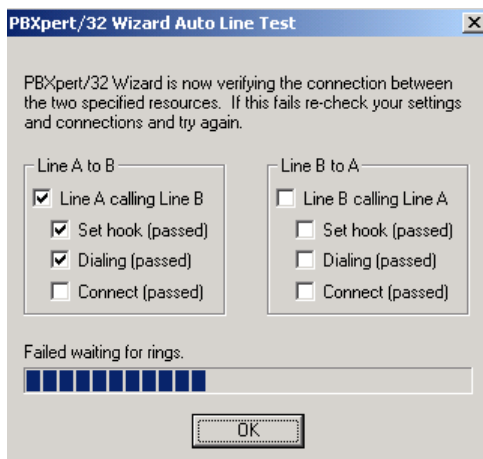
13. Click **Next**.

Channels 1 and 2 are in one port, and channels 3 and 4 are in the next port.

14. Confirm your settings. Make certain **Run Wizard Auto-Test** is selected. The Wizard Auto Test verifies that the correct channel is plugged into the correct extension. Click **Next**.



If you get an error during the Wizard Auto Test, confirm your settings and re-test.



15. When the Wizard Auto Test is successful, click **OK**.
16. Click **Next**.
17. The Wizard then runs a series of tests to learn the tones of the phone system. This takes several minutes.
18. If the data have all green lights, then click **Keep Data**.



If there are any red lights, re-run the test.

19. Click **Next**.
20. The Wizard verifies all of the settings it learned.
21. Click **OK**.
22. The Wizard displays the results from the test. Click **Finish**.

-
23. Select File > Exit, from the menu bar.

Advanced Tone Features & INI File

1. Select from the *Start* menu, Programs > Dialogic System Software > Tone Features.
2. Make certain **Disconnect Tone Supervision** and **Tone Set File Enabled** are selected.
3. Choose the correct tone file from the \Dlgsdev\Dialogic\Data directory. The TSF (Tone Set File) name is a combination of the PBX Manufacturer and Model number.
4. Click **OK**.
5. Select from the *Start* menu, Programs > Windows NT Explorer.
6. Double-click on the HELLONT directory.
7. Double-click on **HELLONT.INI**. This opens the **HELLONT.INI** file in *Notepad*.
8. Find the [VoiceHardware] section. Go to the bottom of the section and type use_perfect_call=1.
9. Save the file and exit.

Software Overview

This installation adds software to your PC. Some of this software is discussed below.

Each application listed in the Voice Processing program group (on the *Start* menu) is described below. Some of the applications displayed in the *Start* menu's *Programs* group are optional modules that are purchased separately. All of the following application names display even if you

have not purchased the corresponding module(s), but you cannot access an optional module unless you have unlocked it on your software key.

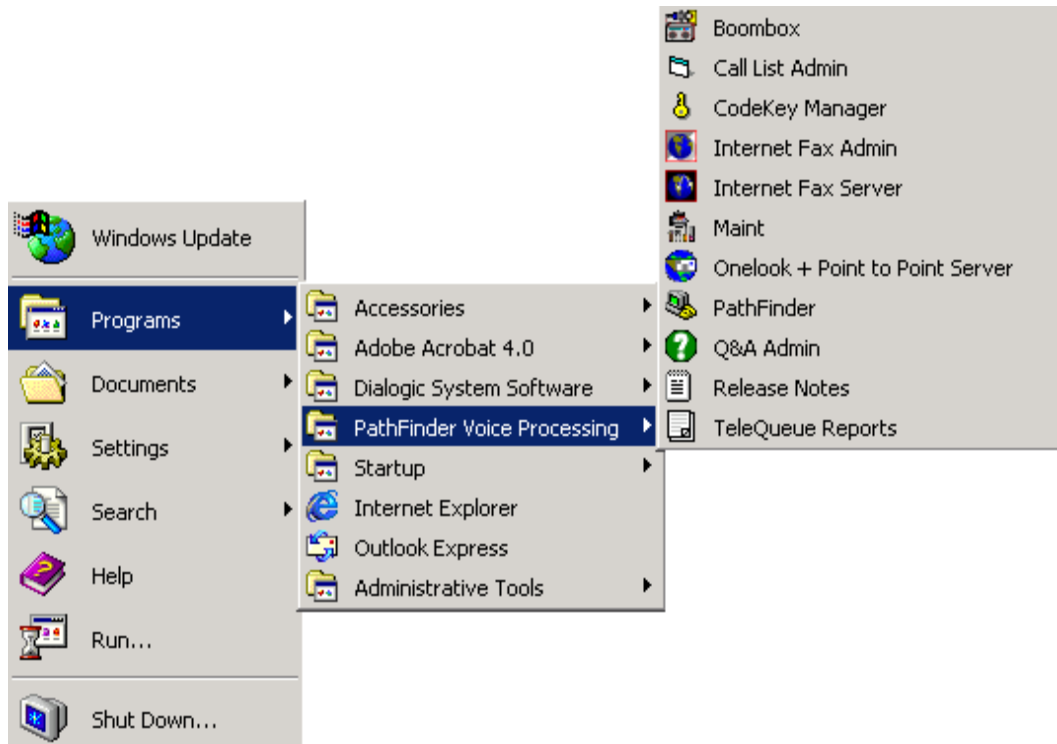


Figure 2-3: PathFinder Start Menu

Boom Box -- A utility used to record, edit, and play back *PathFinder* voice prompts.

Call List Admin -- For administrative use relating to the Chalk Talk optional module.

CodeKey Manager -- Shows what options are enabled on the software key. Allows you to upgrade *PathFinder* with an unlock code.

Internet Fax Admin -- For reporting and configuring the optional internet fax module.

Internet Fax Server -- Controls the internet fax module.

Maint -- The module used to configure the voice processing engine.

Onelook -- Controls access to the Onelook module.

Point to Point -- Controls access to the Point to Point module.

Q&A Admin -- Allows you to set parameters for query of callers to get multiple responses and retrieve the answers from one mailbox location.

TeleQueue Reports -- Provides reports that detail the operation of the call queueing system.

Installation Troubleshooting

The following installation problems may be solved as follows:

***PathFinder* Won't Start**

Check the error log file (C:\PathFinder\Logs\Error.Log) for the following error:

Please make sure the Sentinel key is attached and the drivers are loaded. Program terminating, press a key.

Monitor displays the following error:

Failed to wait for startup signal event.

Attach the software key (activator) to LPT1 on the PC. Refer to ["Software Security Key" on page 2-13](#) for more information.

How Can I Be Certain I Configured My Dialogic Boards Correctly?

The best way to determine if your Dialogic boards are configured correctly is to use the Universal Dialogic Diagnostic Utility (UDDU). Run the Dialogic Configuration Manager (DCM) to edit configurations.



*Do not start the UDDU while any **PathFinder** software is running.*

1. Access the UDDU program by selecting from the *Start* menu Programs > Dialogic System Software > Universal Dialogic Diagnostic Utility.
2. The system warns you that all Dialogic boards will be stopped; select **Yes**.
3. Select the type of board and type of tests that you would like to run. Consult your Dialogic documentation for details on available tests.
4. Investigate any failure.
5. If you get a failure in the *PC Interrupt* test, double check your IRQ settings on the board and in the Dialogic software.

3 Phone System Integration and Setup

This chapter describes the Simplified Message Desk Interface (SMDI) integration process, and how to setup the *STARPLUS*[®] and *infinite*[®] phone systems.

Phone System Integration Protocols

The software required to configure the Simplified Message Desk Interface (SMDI) integration is included as part of the standard *PathFinder* package.

SMDI

SMDI is a special integration module used in particular telephone systems, especially larger telephone systems such as CENTREX, Fujitsu 9600, and NEC2400. SMDI integration requires an RS-232 connection between the telephone system and *PathFinder*.



*The following procedures apply only to integrating *PathFinder*; they do not apply to setting up your telephone system.*

Prerequisites

To integrate *PathFinder* with an SMDI protocol, you first must have a functioning *PathFinder* application with at least one available COM port.

Switch Requirements

The telephone system must support the SMDI protocol. Certain phone systems require additional hardware, such as Voice Bridge. Consult your sales representative regarding any additional hardware requirements.

Integration

Configuration Process

To configure the SMDI integration, follow these steps:

1. Configure the phone system switch (PBX) to send all calls to the *PathFinder* ports based on Busy and/or No Answer conditions.
2. If you are using a Voice Bridge, follow the Voice Bridge instructions to configure the device.
3. Connect the SMDI link (or Voice Bridge) to the PC's COM1 port. The default is 1200 E71. If you need to change these parameters, you can modify the SMDI.INI file (refer to "*SMDI.INI File*" on page 3-4).
4. From the *Start* menu, select Programs > *PathFinder* Voice Processing > MAINT.
5. SMDI integrations require two auxiliary lines. The first is used for Message Manager, the second to process the SMDI packets from the telephone system. Follow these steps to configure the auxiliary line:
 - a. From the MAINT menu bar, select Configuration > System Settings > Auxiliary Tasks.
 - b. Make sure that there is no event group selected.
 - c. Click **Add** to add a new task; this new task must be the second task.
 - d. In the *Name* field, select **SMDISV**.
 - e. When you are finished, click on **Accept**.
6. From the main **MAINT** window, click the **Lines** button in the toolbar.
7. Make sure that the PBX entry for each of the lines is **SMDI**.
8. Create the necessary mailbox and extension numbers.
9. From the main **MAINT** window, select Configuration > Telephony Settings > MWI Notification.
10. Set the message waiting indicators' *Set* and *Clear* values to **SMDI**.
11. Bring up the system and test the integration as needed.

Adding Registry Variables

These options correspond to registry variables that can be added to *PathFinder* by following these steps:

1. From the *Start* menu, select Programs > *PathFinder* Voice Processing > MAINT to open the MAINT application.
2. From the menu bar, select Configuration > Registry.
3. In the Registry setup window, fill in the name and value for each desired option (refer to [Table 3-1](#)). Leave all other fields blank.

Customization Parameters

You can customize six aspects of the SMDI integration, as follows:

Table 3-1: SMDI Defaults

SMDI Parameters	Default	Description
SmdiMaxRings	5 rings	This parameter controls how many rings <i>PathFinder</i> waits before answering a call as non-integrated.
SmdiMaxWaitTime	6 seconds	This parameter controls how many seconds <i>PathFinder</i> waits after receiving a ring or SMDI packet before it gives up.
SmdiSkipCheck	OFF	When SkipCheck is turned on, <i>PathFinder</i> does not confirm that mailboxes exist when the packet is received. To turn this option on, use one in the <i>Value</i> field. To turn this option off, delete all data in the <i>Value</i> field.
SmdiDigitLength	7	This is the number of digits coming in from the switch.
SmdiXOnXOff	OFF	If you are having problems communicating with the PBX or Voice Bridge, make sure that XOn/XOff is being used. If it is being used, set this value to one.
SmdiMbxPassword	<i>This parameter is not used.</i>	

SMDI.INI File

The SMDI.INI file can be used to change the RS232 settings. By default, *PathFinder* uses the following settings:

- ☐ Baud rate: 1200
- ☐ Parity: Even
- ☐ Data Bits: Seven
- ☐ Stop Bits: One

The SMDI.INI file can change any or all of these parameters, as well as the registry variable (r_ird).

The file is located in the *Data* directory; it is a DOS text file and can be edited as such. Here is an example:

```
; Lines beginning with semicolons are comments
ComPort=2
ComBaudRate=9600
ComParams=N81
r_ird=1
```

Problem Diagnosis

The SMDI system can log more information if you need to diagnose system problems. In order to log such information, turn on **Integration Debugging/Logging**.

RS-232 Connection

The serial port providing integration from the SMDI must be connected to the serial port on the PC, not the parallel port. This has been a major problem with some installations.

With Windows NT®, you can use the HyperTerminal program in Programs > Accessories > HyperTerminal > HyperTerminal to verify you are communicating with the PBX/Voice Bridge. Make sure the COM settings are correct for the connection.

Other Protocols

Call Vodavi Technical Support for assistance in integrating other protocols.

Phone System Set Up

Follow the integration instructions that pertain to your telephone system in order for it to work with *PathFinder*.

Starplus Systems

Starplus 2448EX

Hardware Requirements

- ❑ One SLT port per *PathFinder* voice port. Each SLT card provides eight ports.
- ❑ One APB card. There are two DTMF receivers built on the APB card.
- ❑ One SLU module. The SLU is installed on the APB card. The SLU provides four additional DTMF receivers for a total of six.
- ❑ One ring generator (RGU) unit is needed.

Supported Features

- ❑ Station forward to a personal greeting.
- ❑ Message waiting On/Off LEDs.
- ❑ Outdial (to pager or specific number).
- ❑ Multiple Return to Operator.

Table 3-2: Starplus 2448 EX - Configuration Setup

<ol style="list-style-type: none"> 1. From Station 10, enter the Admin code of *2366 (or dial ** and your password). 2. To disable the conference feature on SLT ports to be assigned to the VM group: press Flash 50, enter SLT extension range to be assigned to the VM group (XX-XX), press Page A, Btn 6. 3. Press Flash 36, Btn 1 to enter VM group programming for VM group 690. 4. Press Flash 36, Btn 12 and enter the SLT ports into VM group 690. 5. Press Flash 36, Btn 10 to set the Leave Table as Table 0 and Btn 11 to set the Retrieve Table as Table 1. 6. Leave Table Programming <ol style="list-style-type: none"> a. Press Flash 37. b. Enter [0] + [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - First 0 is the table number assigned - Second 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with PathFinder's 100 and 200 menus 7. Retrieve Table Programming <ol style="list-style-type: none"> a. Press Flash 37. b. Enter [1] + [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 1 is the table number assigned - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with PathFinder's 100 and 200 menus c. Enter [1] + [1] + [*] + [HOLD]. <ul style="list-style-type: none"> - First 1 is the table number assigned - Second 1 is a suffix digit - * is a digit that informs PathFinder that this is a subscriber. 	<ol style="list-style-type: none"> d. Enter [8] + [0] + [#9999999] + [HOLD]. <ul style="list-style-type: none"> - 8 is the disconnect table - 0 is a required entry - #9999999 is the disconnect code used by PathFinder 8. Press Flash 40, Btn 4, enter the CO line range, dial [4] on the dialpad, then press [HOLD] to enable Loop Supervision for all CO lines. <p><i>To ring CO lines directly to VM, program VM extensions into a UCD group in addition to the VM group.</i></p> 9. UCD group programming. <ol style="list-style-type: none"> a. Press Flash 19, Btn 11. b. Enter the station numbers into the UCD group, then press [HOLD]. 10. Program CO lines to ring the UCD group. <ol style="list-style-type: none"> a. Press Flash 40 to enter CO line programming. b. Enter the CO line range, then press [HOLD]. c. Press Btn 9, enter the UCD group number [890], then press [HOLD]. 11. Press Flash 90, then press [HOLD] to update and exit the programming mode. 12. Perform the following at each station: <ol style="list-style-type: none"> a. Press [SPEED] twice. b. Press the flexible button to be programmed. c. Dial [690] on the keypad. d. Press the [ON/OFF] button.
---	--



Disconnect digits are not sent for internal calls. They are only sent for disconnecting CO calls when Loop Supervision is enabled.

Starplus 96EX

Hardware Requirements

- ❑ One SIB port per *PathFinder* voice port. Each SIB card provides eight ports.
- ❑ One APL card. There are two DTMF receivers built on the APL card.
- ❑ One SLU module. The SLU is installed on the APL card. The SLU provides four additional DTMF receivers for a total of six.
- ❑ One Ring Generator (RGU) Unit is needed.

Supported Features

- ❑ Station forward to a personal greeting.
- ❑ Message waiting On/Off LEDs.
- ❑ Outdial (to pager or specific number).
- ❑ Multiple Return to Operator.

Table 3-3: Starplus 96EX - Configuration Setup

<ol style="list-style-type: none"> 1. From Station 100, enter the Admin code of *2366 (or dial ** and your password). 2. To disable the conference feature on SLT ports to be assigned to the VM group: press Flash 50, enter SLT extension range to be assigned to the VM group (XXX-XXX), press Btn 13, then press [HOLD]. 3. Press Flash 36, Btn 1 to enter VM group programming for VM group 690. 4. Press Flash 36, Btn 12 and enter the SLT ports into VM group 690. 5. Press Flash 36, Btn 10 to set the Leave Table as Table 0 and Btn 11 to set the Retrieve Table as Table 1. 6. Leave Table Programming <ol style="list-style-type: none"> a. Press Flash 37. b. Enter [0] + [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - First 0 is the table number assigned - Second 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with PathFinder's 100 and 200 menus 7. Retrieve Table Programming <ol style="list-style-type: none"> a. Press Flash 37. b. Enter [1] + [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 1 is the table number assigned - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with PathFinder's 100 and 200 menus 	<ol style="list-style-type: none"> <ol style="list-style-type: none"> c. Enter [1] + [1] + [*] + [HOLD]. <ul style="list-style-type: none"> - First 1 is the table number assigned - Second 1 is a suffix digit - * is a digit that informs PathFinder that this is a subscriber. d. Enter [8] + [0] + [#9999999] + [HOLD]. <ul style="list-style-type: none"> - 8 is the disconnect table - 0 is a required entry - #9999999 is the disconnect code used by PathFinder 8. Press Flash 40, Btn 4, enter the CO line range, dial [4] on the dialpad, then press [HOLD] to enable Loop Supervision for all CO lines. 9. Program CO line ringing assignments. <ol style="list-style-type: none"> a. Press Flash 40 to enter CO line programming. b. Enter the CO line range, then press [HOLD]. c. Press Btn 9, then Btn 1 to program ringing assignments. d. Enter [690] + [3] on the dial pad, then press [HOLD]. <ul style="list-style-type: none"> - 690 is the voice mail group - 3 is for day and night ringing 10. Perform the following at each station: <ol style="list-style-type: none"> a. Press [SPEED] twice. b. Press the flexible button to be programmed. c. Dial [690] on the keypad. d. Press the [ON/OFF] button.
--	---



Disconnect digits are not sent for internal calls. They are only sent for disconnecting CO calls when Loop Supervision is enabled.

Starplus SPD 612

Hardware Requirements

The following are the hardware requirements for the **STARPLUS** SPD 612 in-band integration:

- ❑ One 2 x 4 SLT expander card. Each card provides four SLT circuits. Or one OPX box per VM port can be used. Each OPX box decreases DKT ports by one.
- ❑ One DTMF receiver module must be installed on the 2 x 4 SLT card. This provides one DTMF receiver. OPX boxes contain their own DTMF receiver internally.
- ❑ One ring generator unit is needed when using the 2 x 4 SLT card.
- ❑ A 48 volt power supply is needed if using the OPX box to connect to **PathFinder**. Each OPX box draws 500 ma of current.

Supported Features

The supported features of the **STARPLUS** SPD 612 include:

- ❑ Station forward to a personal greeting.
- ❑ Message waiting on/off LEDs.
- ❑ Stations can transfer a caller directly to a mailbox without supervising the call.
- ❑ Outdial (to pager or specific number).
- ❑ Multiple Return to Operator

Table 3-4: Starplus SPD 612 - Configuration Setup

<ol style="list-style-type: none"> 1. From Station 100, enter the Admin code of **3226 (or dial ** and your password). 2. To disable the conference feature on SLT ports to be assigned to the VM group: press Flash 50, enter SLT extension range to be assigned to the VM group (XXX-XXX), then press Btn 3. 3. Press Flash 65, Btn 1 to enter VM group programming for VM group 440. 4. Press Flash 65, Btn 12 and enter the SLT ports into a VM group 440-447. 5. Press Flash 65, Btn 10 to set the Leave Table as Table 0 and Btn 11 to set the Retrieve Table as Table 1. 6. Leave Table Programming <ol style="list-style-type: none"> a. Press Flash 66, Btn 1 to select Table 0. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus 7. Retrieve Table Programming <ol style="list-style-type: none"> a. Press Flash 66, Btn 2 to select Table 1. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus c. Press Btn 2 to select Table 1. 	<ol style="list-style-type: none"> d. Enter [1] + [*] + [HOLD]. <ul style="list-style-type: none"> - 1 is a suffix digit - * is a digit that informs <i>PathFinder</i> that this is a subscriber. e. Enter [9] + [#9999999] + [HOLD]. <ul style="list-style-type: none"> - 9 is the disconnect table - #9999999 is the disconnect code used by <i>PathFinder</i> 8. Press Flash 40, Btn 6, enter the CO line range, press [HOLD], press Btn 6, dial [4] on the dialpad, then press [HOLD] to enable Loop Supervision for all CO lines. 9. Program CO line ringing assignments. <ol style="list-style-type: none"> a. Press Flash 40 to enter CO line programming. b. Enter the CO line range, then press [HOLD]. c. Press Btn 11 to program ringing assignments. d. Enter [440] + [7] on the dial pad, then press [HOLD]. <ul style="list-style-type: none"> - 440 is the voice mail group - 7 is for day and night ringing 10. Perform the following at each station: <ol style="list-style-type: none"> a. Press [SPEED] twice. b. Press the flexible button to be programmed. c. Dial [440] on the keypad. d. Press the [ON/OFF] button.
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Starplus SPD 1428

Hardware Requirements

The following are the hardware requirements for the **STARPLUS** SPD 1428 digital in-band integration:

- ❑ One SLT port per **PathFinder** voice port. Each 2 x 4 SLT card provides four ports.
- ❑ One DTMF Receiver module. The DTMF is installed on the 2 x 4 SLT card. The DTMF provides one additional DTMF receiver for a total of two. If the phone system has an expansion KSU and 2 x 4 or 4 x 8 card installed, an additional DTMF receiver can be installed on these. This would bring the total to four DTMF receivers. OPX boxes contain their own DTMF receiver internally. A 48V power supply is needed.
- ❑ One Ring Generator unit is needed.

Supported Features

The supported features of the **STARPLUS** 1428 SPD include:

- ❑ Station forward to a personal greeting.
- ❑ Message waiting On/Off LEDs.
- ❑ Stations transfer caller directly to mailbox.
- ❑ Outdial (to pager or specific number).
- ❑ Multiple Return to Operator.

Table 3-5: Starplus SPD 1428 - Configuration Setup

<ol style="list-style-type: none"> 1. From Station 100, enter the Admin code of **3226 (or dial ** and your password). 2. To disable the conference feature on SLT ports to be assigned to the VM group: press Flash 50, enter SLT extension range to be assigned to the VM group (XXX-XXX), then press Btn 3. 3. Press Flash 65, Btn 1 to enter VM group programming for VM group 440. 4. Press Flash 65, Btn 12 and enter the SLT ports into a VM group 440-447. 5. Press Flash 65, Btn 10 to set the Leave Table as Table 0 and Btn 11 to set the Retrieve Table as Table 1. 6. Leave Table Programming <ol style="list-style-type: none"> a. Press Flash 66, Btn 1 to select Table 0. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus 7. Retrieve Table Programming <ol style="list-style-type: none"> a. Press Flash 66, Btn 2 to select Table 1. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus c. Press Btn 2 to select Table 1. 	<ol style="list-style-type: none"> d. Enter [1] + [*] + [HOLD]. <ul style="list-style-type: none"> - 1 is a suffix digit - * is a digit that informs <i>PathFinder</i> that this is a subscriber. e. Enter [9] + [#9999999] + [HOLD]. <ul style="list-style-type: none"> - 9 is the disconnect table - #9999999 is the disconnect code used by <i>PathFinder</i> 8. Press Flash 40, Btn 6, enter the CO line range, press [HOLD], press Btn 6, dial [4] on the dialpad, then press [HOLD] to enable Loop Supervision for all CO lines. 9. Program CO line ringing assignments. <ol style="list-style-type: none"> a. Press Flash 40 to enter CO line programming. b. Enter the CO line range, then press [HOLD]. c. Press Btn 11 to program ringing assignments. d. Enter [440] + [7] on the dial pad, then press [HOLD]. <ul style="list-style-type: none"> - 440 is the voice mail group - 7 is for day and night ringing 10. Perform the following at each station: <ol style="list-style-type: none"> a. Press [SPEED] twice. b. Press the flexible button to be programmed. c. Dial [440] on the keypad. d. Press the [ON/OFF] button.
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Starplus SPD 2856

Hardware Requirements

The following are the hardware requirements for the **STARPLUS** SPD 2856 digital in-band integration:

- ❑ One SLT port per **PathFinder** voice port. Each 4 x 8 SLT card provides eight ports.
- ❑ One DTMF Receiver module. The DTMF is installed on the 4 x 8 SLT card or other 4 x 8 cards. The DTMF provides one DTMF receiver.
- ❑ One Ring Generator unit is needed.

Supported Features

The supported features of the **STARPLUS** SPD 2856 include:

- ❑ Station forward to a personal greeting.
- ❑ Message waiting On/Off LEDs.
- ❑ Outdial (to pager or specific number).
- ❑ Multiple Return to Operator.
- ❑ Stations transfer callers directly to mailbox.

Table 3-6: Starplus SPD 2856 - Configuration Setup

<ol style="list-style-type: none"> 1. From Station 100, enter the Admin code of **3226 (or dial ** and your password). 2. To disable the conference feature on SLT ports to be assigned to the VM group: press Flash 50, enter SLT extension range to be assigned to the VM group (XXX-XXX), then press Btn 3. 3. Press Flash 65, Btn 1 to enter VM group programming for VM group 440. 4. Press Flash 65, Btn 12 and enter the SLT ports into a VM group 440-447. 5. Press Flash 65, Btn 10 to set the Leave Table as Table 0 and Btn 11 to set the Retrieve Table as Table 1. 6. Leave Table Programming <ol style="list-style-type: none"> a. Press Flash 66, Btn 1 to select Table 0. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus 7. Retrieve Table Programming <ol style="list-style-type: none"> a. Press Flash 66, Btn 2 to select Table 1. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus c. Press Btn 2 to select Table 1. 	<ol style="list-style-type: none"> d. Enter [1] + [*] + [HOLD]. <ul style="list-style-type: none"> - 1 is a suffix digit - * is a digit that informs <i>PathFinder</i> that this is a subscriber. e. Enter [9] + [#9999999] + [HOLD]. <ul style="list-style-type: none"> - 9 is the disconnect table - #9999999 is the disconnect code used by <i>PathFinder</i> 8. Press Flash 40, Btn 6, enter the CO line range, press [HOLD], press Btn 6, dial [4] on the dialpad, then press [HOLD] to enable Loop Supervision for all CO lines. 9. Program CO line ringing assignments. <ol style="list-style-type: none"> a. Press Flash 40 to enter CO line programming. b. Enter the CO line range, then press [HOLD]. c. Press Btn 11 to program ringing assignments. d. Enter [440] + [7] on the dial pad, then press [HOLD]. <ul style="list-style-type: none"> - 440 is the voice mail group - 7 is for day and night ringing 10. Perform the following at each station: <ol style="list-style-type: none"> a. Press [SPEED] twice. b. Press the flexible button to be programmed. c. Dial [440] on the keypad. d. Press the [ON/OFF] button.
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Starplus SPD 4896

Hardware Requirements

The following are the hardware requirements for the **STARPLUS** SPD 4896 in-band integration:

- ❑ One SLT port per **PathFinder** voice port. Each SL12 card provides twelve ports.
- ❑ One DTM4 installed on the SL12. DTM4 provides four DTMF receivers.
- ❑ In lieu of a DTM4, a 6 X 6 Combo card can be installed. This provides six DTMF receivers.
- ❑ One Ring Generator unit and a 48V power supply are needed.

Supported Features

The supported features of the **STARPLUS** SPD 4896 include:

- ❑ Station forward to a personal greeting.
- ❑ Message waiting On/Off LEDs.
- ❑ Stations can transfer a caller directly to a mailbox without supervising the call.
- ❑ Outdial (to a pager or specific number).
- ❑ Multiple Return to Operator.

Table 3-7: Starplus SPD 4896 - Configuration Setup

<ol style="list-style-type: none"> 1. From Station 100, enter the Admin code of **3226 (or dial ** and your password). 2. To disable the conference feature on SLT ports to be assigned to the VM group: press Flash 50, enter SLT extension range to be assigned to the VM group (XXX-XXX), then press Btn 3. 3. Press Flash 65, Btn 1 to enter VM group programming for VM group 440. 4. Press Flash 65, Btn 12 and enter the SLT ports into a VM group 440-447. 5. Press Flash 65, Btn 10 to set the Leave Table as Table 0 and Btn 11 to set the Retrieve Table as Table 1. 6. Leave Table Programming <ol style="list-style-type: none"> a. Press Flash 66, Btn 1 to select Table 0. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus 7. Retrieve Table Programming <ol style="list-style-type: none"> a. Press Flash 66, Btn 2 to select Table 1. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus c. Press Btn 2 to select Table 1. 	<ol style="list-style-type: none"> d. Enter [1] + [*] + [HOLD]. <ul style="list-style-type: none"> - 1 is a suffix digit - * is a digit that informs <i>PathFinder</i> that this is a subscriber. e. Enter [9] + [#9999999] + [HOLD]. <ul style="list-style-type: none"> - 9 is the disconnect table - #9999999 is the disconnect code used by <i>PathFinder</i> 8. Press Flash 40, Btn 6, enter the CO line range, press [HOLD], press Btn 6, dial [4] on the dialpad, then press [HOLD] to enable Loop Supervision for all CO lines. 9. Program CO line ringing assignments. <ol style="list-style-type: none"> a. Press Flash 40 to enter CO line programming. b. Enter the CO line range, then press [HOLD]. c. Press Btn 11 to program ringing assignments. d. Enter [440] + [7] on the dial pad, then press [HOLD]. <ul style="list-style-type: none"> - 440 is the voice mail group - 7 is for day and night ringing 10. Perform the following at each station: <ol style="list-style-type: none"> a. Press [SPEED] twice. b. Press the flexible button to be programmed. c. Dial [440] on the keypad. d. Press the [ON/OFF] button.
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Starplus DHS

Hardware Requirements

- ❑ An SLA Analog adapter

Supported Features (FP2 ONLY)

The supported features of the **STARPLUS** DHS include:

- ❑ Station forward to a personal greeting.
- ❑ Message waiting On/Off LEDs.
- ❑ Stations can transfer a caller directly to a mailbox without supervising the call.
- ❑ Outdial (to a pager or specific number).
- ❑ Multiple Return to Operator.

Table 3-8: Starplus DHS - Configuration Setup

<ol style="list-style-type: none"> 1. Connect the single line adapter box to the PathFinder PC (note the extension numbers). 2. Enter programming mode: [FEAT] + [#] + [*] + [000000]. 3. Press [SHOW]. 4. Press [NEXT] to go to the station area. Press [SHOW]. 5. Enter the first station number on the keypad to be included as a VM port. Press [SHOW]. 6. Press [NEXT] until the VM PORT entry is on the display. 7. Press [CHG] to mark VM PORT=Y. 8. Repeat this procedure for all stations to be entered as VM ports. 9. Press [SAVE], then press [HOLD] twice. 10. Press [NEXT] until SYSTEM APPLICATION appears. Press [SHOW]. 11. Press [SHOW] at the STATION HUNT GROUP entry. 12. Enter [1] on the keypad and press [SHOW]. 13. Press [CHG] to mark the group as a VM type, then press [NEXT]. 14. Press [SHOW] at the GROUP MEMBER entry. 15. Press [CHG], enter the station number to be assigned in the group, then press [SAVE]. 16. Repeat the procedure until all stations are entered in the group. 17. Press [SAVE]. Then press [HOLD] twice to return to the STATION HUNT entry. 18. Press [NEXT] to go to the VM screen, then press [SHOW]. 19. Press [CHG] at the ICM PREFIX entry. 	<ol style="list-style-type: none"> 20. Press [FEAT], dial [70] + [7], then press [SAVE]. <ul style="list-style-type: none"> <input type="checkbox"/> Press [NEXT] to go to the XFR PREFIX. <input type="checkbox"/> Press [CHG] at the XFR PREFIX entry. <input type="checkbox"/> Press [FEAT] and dial [70] + [7], then press [SAVE]. 21. Press [NEXT] until the ICM SUFFIX entry is shown. 22. Press [CHG] at the ICM SUFFIX entry. 23. Dial [*], then press [SAVE]. 24. Press [NEXT] until DIS DGT appears. 25. Press [CHG], dial [#9999999], then press [SAVE]. 26. Press [HOLD] twice. 27. Press [BACK] twice until 4. RESOURCE appears. 28. Press [SHOW]. 29. Press [CHG] until <i>Ring Scheme</i> shows 1, then press [CLEAR]. <p>Assign a VM flexible buttons on each station as follows:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Press [FEAT] + [#] + [3]. <input type="checkbox"/> Press flexible button to program <input type="checkbox"/> Press [CHG] (soft key) + [FEAT] (soft key). <input type="checkbox"/> Press [FEAT] + [64]. Press [SAVE] (soft key). <p><i>NOTE -- If Call Screening is used with the DHS, then the transferred to party must go on hook after either rejecting the call or transferring the caller to another extension.</i></p>
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Starplus *Triad-S*

Hardware Requirements

The following are the hardware requirements for the *STARPLUS Triad-S* in-band integration:

- ❑ One SLIB port per *PathFinder* voice port. Each SLIB card provides six ports.
- ❑ One DTRU installed on the SLIB. DTRU provides two DTMF receivers.
- ❑ One RGU (ring generator) unit is needed. This can be an internal or external RGU.

Supported Features

The supported features of the *STARPLUS Triad-S* include:

- ❑ Station forward to a personal greeting.
- ❑ Message waiting On/Off LEDs.
- ❑ Stations can transfer a caller directly to a mailbox without supervising the call.
- ❑ Outdial (to a pager or specific number).
- ❑ Multiple Return to Operator.

Table 3-9: Starplus Triad-S - Configuration Setup

<ol style="list-style-type: none"> 1. From Station 100, enter the Admin code of **3226 (or dial ** and your password). 2. To disable the conference feature on SLT ports to be assigned to the VM group: press Flash 50, enter SLT extension range to be assigned to the VM group (XXX-XXX), then press Btn 3. 3. Press Flash 65, Btn 1 to enter VM group programming for VM group 440. 4. Press Flash 65, Btn 12 and enter the SLT ports into a VM group 440-447. 5. Press Flash 65, Btn 10 to set the Leave Table as Table 0 and Btn 11 to set the Retrieve Table as Table 1. 6. Leave Table Programming <ol style="list-style-type: none"> a. Press Flash 66, then press Btn 1 to select Table 0. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus 7. Retrieve Table Programming <ol style="list-style-type: none"> a. Press Flash 66, then press Btn 2 to select Table 1. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus 	<ol style="list-style-type: none"> c. Press Btn 2 to select Table 1. d. Enter [1] + [*] + [HOLD]. <ul style="list-style-type: none"> - 1 is a suffix digit - * is a digit that informs <i>PathFinder</i> that this is a subscriber. e. Press Btn 9, enter [#9999999] + [HOLD]. <ul style="list-style-type: none"> - Btn 9 is the disconnect table - #9999999 is the disconnect code used by <i>PathFinder</i> 8. Perform the following at each station: <ol style="list-style-type: none"> a. Press [SPEED] twice. b. Press the flexible button to be programmed. c. Dial [440] on the keypad. d. Press the [ON/OFF] button. <p><i>NOTE -- You can adjust the volume level on each SLT port by using the volume up or down code. This provides additional control for both internal and external calls into <i>PathFinder</i>.</i></p> <p>IMPORTANT -- If Call Screening is used with <i>Triad-S</i>, then Auto Callback must be disabled in the phone system (FLASH 01, Button 17).</p>
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Starplus Triad 1

Hardware Requirements

The following are the hardware requirements for the **STARPLUS** Triad 1 in-band integration:

- ❑ One SLIB port per **PathFinder** voice port. Each SLIB card provides six ports.
- ❑ One DTRU installed on the SLIB. DTRU provides two DTMF receivers.
- ❑ One RGU (ring generator) unit is needed. This can be an internal or external RGU.

Supported Features

The supported features of the **STARPLUS** Triad 1 include:

- ❑ Station forward to a personal greeting.
- ❑ Message waiting On/Off LEDs.
- ❑ Stations can transfer a caller directly to a mailbox without supervising the call.
- ❑ Outdial (to a pager or specific number).
- ❑ Multiple Return to Operator.

Table 3-10: Starplus Triad 1 - Configuration Setup

<ol style="list-style-type: none"> 1. From Station 100, enter the Admin code of **3226 (or dial ** and your password). 2. To disable the conference feature on SLT ports to be assigned to the VM group: press Flash 50, enter SLT extension range to be assigned to the VM group (XXX-XXX), then press Btn 3. 3. Press Flash 65, Btn 1 to enter VM group programming for VM group 440. 4. Press Flash 65, Btn 12 and enter the SLT ports into a VM group 440-447. 5. Press Flash 65, Btn 10 to set the Leave Table as Table 0 and Btn 11 to set the Retrieve Table as Table 1. 6. Leave Table Programming <ol style="list-style-type: none"> a. Press Flash 66, then press Btn 1 to select Table 0. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus 7. Retrieve Table Programming <ol style="list-style-type: none"> a. Press Flash 66, then press Btn 2 to select Table 1. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus 	<ol style="list-style-type: none"> c. Press Btn 2 to select Table 1. d. Enter [1] + [*] + [HOLD]. <ul style="list-style-type: none"> - 1 is a suffix digit - * is a digit that informs <i>PathFinder</i> that this is a subscriber. e. Press Btn 9, enter [#9999999] + [HOLD]. <ul style="list-style-type: none"> - Btn 9 is the disconnect table - #9999999 is the disconnect code used by <i>PathFinder</i> 8. Perform the following at each station: <ol style="list-style-type: none"> a. Press [SPEED] twice. b. Press the flexible button to be programmed. c. Dial [440] on the keypad. d. Press the [ON/OFF] button. <p><i>NOTE -- You can adjust the volume level on each SLT port by using the volume up or down code. This provides additional control for both internal and external calls into <i>PathFinder</i>.</i></p> <p>IMPORTANT -- If Call Screening is used with <i>Triad 1</i>, then Auto Callback must be disabled in the phone system (FLASH 01, Button 17).</p>
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Starplus Triad 2

Hardware Requirements

The following are the hardware requirements for the **STARPLUS** Triad 2 in-band integration:

- ❑ One SLIB port per **PathFinder** voice port. Each SLIB card provides six ports.
- ❑ One DTRU installed on the SLIB. DTRU provides two DTMF receivers.
- ❑ One RGU (ring generator) unit is needed. This can be an internal or external RGU. One or two SLIBs is an internal RGU, and more than two SLIBs are an external RGU.

Supported Features

The supported features of the **STARPLUS** Triad 2 include:

- ❑ Station forward to a personal greeting.
- ❑ Message waiting On/Off LEDs.
- ❑ Stations can transfer a caller directly to a mailbox without supervising the call.
- ❑ Outdial (to a pager or specific number).
- ❑ Multiple Return to Operator.

Table 3-11: Starplus Triad 2 - Configuration Setup

<ol style="list-style-type: none"> 1. From Station 100, enter the Admin code of **3226 (or dial ** and your password). 2. To disable the conference feature on SLT ports to be assigned to the VM group: press Flash 50, enter SLT extension range to be assigned to the VM group (XXX-XXX), then press Btn 3. 3. Press Flash 65, Btn 1 to enter VM group programming for VM group 440. 4. Press Flash 65, Btn 12 and enter the SLT ports into a VM group 440-447. 5. Press Flash 65, Btn 10 to set the Leave Table as Table 0 and Btn 11 to set the Retrieve Table as Table 1. 6. Leave Table Programming <ol style="list-style-type: none"> a. Press Flash 66, then press Btn 1 to select Table 0. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus 7. Retrieve Table Programming <ol style="list-style-type: none"> a. Press Flash 66, then press Btn 2 to select Table 1. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus 	<ol style="list-style-type: none"> c. Press Btn 2 to select Table 1. d. Enter [1] + [*] + [HOLD]. <ul style="list-style-type: none"> - 1 is a suffix digit - * is a digit that informs <i>PathFinder</i> that this is a subscriber. e. Press Btn 9, enter [#9999999] + [HOLD]. <ul style="list-style-type: none"> - Btn 9 is the disconnect table - #9999999 is the disconnect code used by <i>PathFinder</i> 8. Perform the following at each station: <ol style="list-style-type: none"> a. Press [SPEED] twice. b. Press the flexible button to be programmed. c. Dial [440] on the keypad. d. Press the [ON/OFF] button. <p><i>NOTE -- You can adjust the volume level on each SLT port by using the volume up or down code. This provides additional control for both internal and external calls into <i>PathFinder</i>.</i></p> <p>IMPORTANT -- If Call Screening is used with <i>Triad 2</i>, then Auto Callback must be disabled in the phone system (FLASH 01, Button 17).</p>
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Starplus Triad 3

Hardware Requirements

The following are hardware requirements for the **STARPLUS** Triad 3 in-band integration:

- ❑ One SLIB port per **PathFinder** voice port. Each SLIB card provides twelve ports.
- ❑ One DTMF-A installed on the SLIB. DTMF-A provides four DTMF receivers.
- ❑ One RGU (ring generator) unit is needed.

Supported Features

The supported features of the **STARPLUS** Triad 3 include:

- ❑ Station forward to a personal greeting.
- ❑ Message waiting On/Off LEDs.
- ❑ Stations can transfer a caller directly to a mailbox without supervising the call.
- ❑ Outdial (to a pager or specific number).
- ❑ Multiple Return to Operator.

Table 3-12: Starplus Triad 3 - Configuration Setup

<ol style="list-style-type: none"> 1. From Station 100, enter the Admin code of **3226 (or dial ** and your password). 2. To disable the conference feature on SLT ports to be assigned to the VM group: press Flash 50, enter SLT extension range to be assigned to the VM group (XXX-XXX), then press Btn 3. 3. Press Flash 65, Btn 1 to enter VM group programming for VM group 440. 4. Press Flash 65, Btn 12 and enter the SLT ports into a VM group 440-447. 5. Press Flash 65, Btn 10 to set the Leave Table as Table 0 and Btn 11 to set the Retrieve Table as Table 1. 6. Leave Table Programming <ol style="list-style-type: none"> a. Press Flash 66, then press Btn 1 to select Table 0. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus 7. Retrieve Table Programming <ol style="list-style-type: none"> a. Press Flash 66, then press Btn 2 to select Table 1. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus 	<ol style="list-style-type: none"> c. Press Btn 2 to select Table 1. d. Enter [1] + [*] + [HOLD]. <ul style="list-style-type: none"> - 1 is a suffix digit - * is a digit that informs <i>PathFinder</i> that this is a subscriber. e. Press Btn 9, enter [#9999999] + [HOLD]. <ul style="list-style-type: none"> - Btn 9 is the disconnect table - #9999999 is the disconnect code used by <i>PathFinder</i> 8. Perform the following at each station: <ol style="list-style-type: none"> a. Press [SPEED] twice. b. Press the flexible button to be programmed. c. Dial [440] on the keypad. d. Press the [ON/OFF] button. <p><i>NOTE -- You can adjust the volume level on each SLT port by using the volume up or down code. This provides additional control for both internal and external calls into <i>PathFinder</i>.</i></p> <p>IMPORTANT -- If Call Screening is used with <i>Triad 3</i>, then Auto Callback must be disabled in the phone system (FLASH 01, Button 17).</p>
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infinite Systems

infinite 4096

Hardware Requirements

The following are the hardware requirements for the *infinite* 4096 in-band integration:

- ❑ One SIB port per *PathFinder* voice port. Each SIB card provides eight ports.
- ❑ One APL card. There are two DTMF receivers built on the APL card.
- ❑ One SLU module. The SLU is installed on the APL card. The SLU provides four additional DTMF receivers for a total of six.
- ❑ One Ring Generator (RG) unit is needed.

Supported Features

The supported features of the *infinite* 4096 include:

- ❑ Station forward to a personal greeting.
- ❑ Message waiting On/Off LEDs.
- ❑ Outdial (to pager or specific number).
- ❑ Multiple Return to Operator.

Table 3-13: infinite 4096 - Configuration Setup

<ol style="list-style-type: none"> 1. From Station 100, enter the Admin code of **2366 (or dial ** and your password). 2. To disable the conference feature on SLT ports to be assigned to the VM group: press Flash 50, enter SLT extension range to be assigned to the VM group (XXX-XXX), press Btn 13, then press [HOLD]. 3. Press Flash 36, Btn 1 to enter VM group programming for VM group 690. 4. Press Flash 36, Btn 12 and enter the SLT ports into VM group 690. 5. Press Flash 36, Btn 10 to set the Leave Table as Table 0 and Btn 11 to set the Retrieve Table as Table 1. 6. Leave Table Programming <ol style="list-style-type: none"> a. Press Flash 37. b. Enter [0] + [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - First 0 is the table number assigned - Second 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus 7. Retrieve Table Programming <ol style="list-style-type: none"> a. Press Flash 37. b. Enter [1] + [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 1 is the table number assigned - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus 	<ol style="list-style-type: none"> c. Enter [1] + [1] + [*] + [HOLD]. <ul style="list-style-type: none"> - First 1 is the table number assigned - Second 1 is a suffix digit - * is a digit that informs <i>PathFinder</i> that this is a subscriber. d. Enter [8] + [0] + [#9999999] + [HOLD]. <ul style="list-style-type: none"> - 8 is the disconnect table - 0 is a required entry - #9999999 is the disconnect code used by <i>PathFinder</i> 8. Press Flash 40, enter the CO line range, dial [4] on the dialpad, press [HOLD], press Btn 4, then press [HOLD] to enable Loop Supervision for all CO lines. 9. Program CO line ringing assignments. <ol style="list-style-type: none"> a. Press Flash 40 to enter CO line programming. b. Enter the CO line range, then press [HOLD]. c. Press Btn 9, then Btn 1 to program ringing assignments. d. Enter [690] + [3] on the dial pad, then press [HOLD]. <ul style="list-style-type: none"> - 690 is the voice mail group - 3 is for day and night ringing 10. Perform the following at each station: <ol style="list-style-type: none"> a. Press [SPEED] twice. b. Press the flexible button to be programmed. c. Dial [690] on the keypad. d. Press the [ON/OFF] button.
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Disconnect digits are not sent for internal calls. They are only sent for disconnecting CO calls when Loop Supervision is enabled.

infinite DVX I

Hardware Requirements

The following are the hardware requirements for the *infinite* DVX I in-band integration:

- ❑ One SLT port per *PathFinder* voice port. Each 2 x 4 SLT card provides four ports.
- ❑ One DTMF Receiver module. The DTMF is installed on the 2 x 4 SLT card. The DTMF provides one additional DTMF receiver for a total of two. If the phone system has an expansion KSU and 2 x 4 or 4 x 8 card installed, an additional DTMF receiver can be installed on these. This would bring the total to four DTMF receivers. OPX boxes contain their own DTMF receiver internally. A 48V power supply is needed.
- ❑ One Ring Generator unit is needed.

Supported Features

The supported features of the *infinite* DVX I include:

- ❑ Station forward to a personal greeting.
- ❑ Message waiting On/Off LEDs.
- ❑ Stations transfer caller directly to mailbox.
- ❑ Outdial (to pager or specific number).
- ❑ Multiple Return to Operator.

Table 3-14: infinite DVX I - Configuration Setup

<ol style="list-style-type: none"> 1. From Station 100, enter the Admin code of **3226 (or dial ** and your password). 2. To disable the conference feature on SLT ports to be assigned to the VM group: press Flash 50, enter SLT extension range to be assigned to the VM group (XXX-XXX), then press Btn 3. 3. Press Flash 65, Btn 1 to enter VM group programming for VM group 440. 4. Press Flash 65, Btn 12 and enter the SLT ports into a VM group 440-447. 5. Press Flash 65, Btn 10 to set the Leave Table as Table 0 and Btn 11 to set the Retrieve Table as Table 1. 6. Leave Table Programming <ol style="list-style-type: none"> a. Press Flash 66, Btn 1 to select Table 0. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus 7. Retrieve Table Programming <ol style="list-style-type: none"> a. Press Flash 66, Btn 2 to select Table 1. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus c. Press Btn 2 to select Table 1. d. Enter [1] + [*] + [HOLD]. <ul style="list-style-type: none"> - 1 is a suffix digit - * is a digit that informs <i>PathFinder</i> that this is a subscriber. 	<ol style="list-style-type: none"> e. Press Btn 9, enter [#9999999] + [HOLD]. <ul style="list-style-type: none"> - Btn 9 is the disconnect table - #9999999 is the disconnect code used by <i>PathFinder</i> 8. Press Flash 40, enter the CO line range, press [HOLD], press Btn 6, dial [4] on the dialpad, then press [HOLD] to enable Loop Supervision for all CO lines. 9. Program CO line ringing assignments. <ol style="list-style-type: none"> a. Press Flash 40 to enter CO line programming. b. Enter the CO line range, then press [HOLD]. c. Press Btn 11 to program ringing assignments. d. Enter [440] + [7] on the dial pad, then press [HOLD]. <ul style="list-style-type: none"> - 440 is the voice mail group - 7 is for day and night ringing 10. Perform the following at each station: <ol style="list-style-type: none"> a. Press [SPEED] twice. b. Press the flexible button to be programmed. c. Dial [440] on the keypad. d. Press the [ON/OFF] button. <p><i>NOTE -- You can adjust the volume level on each SLT port by using the volume up or down code. This provides additional control for both internal and external calls into <i>PathFinder</i>. Handset receiver gain feature must be turned on, Flash 05, Button 13.</i></p>
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infinite DVX II

Hardware Requirements

The following are the hardware requirements for the *infinite* DVX II in-band integration:

- ❑ One SLT port per *PathFinder* voice port. Each 4 x 8 SLT card provides eight ports.
- ❑ One DTMF Receiver module. The DTMF is installed on the 4 x 8 SLT card or other 4 x 8 cards. The DTMF provides one DTMF receiver.
- ❑ One Ring Generator unit is needed.

Supported Features

The supported features of the *infinite* DVX II include:

- ❑ Station forward to a personal greeting.
- ❑ Message waiting On/Off LEDs.
- ❑ Outdial (to pager or specific number).
- ❑ Multiple Return to Operator.
- ❑ Stations transfer callers directly to mailbox.

Table 3-15: infinite DVX II - Configuration Setup

<ol style="list-style-type: none"> 1. From Station 100, enter the Admin code of **3226 (or dial ** and your password). 2. To disable the conference feature on SLT ports to be assigned to the VM group: press Flash 50, enter SLT extension range to be assigned to the VM group (XXX-XXX), then press Btn 3. 3. Press Flash 65, Btn 1 to enter VM group programming for VM group 440. 4. Press Flash 65, Btn 12 and enter the SLT ports into a VM group 440-447. 5. Press Flash 65, Btn 10 to set the Leave Table as Table 0 and Btn 11 to set the Retrieve Table as Table 1. 6. Leave Table Programming <ol style="list-style-type: none"> a. Press Flash 66, Btn 1 to select Table 0. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus 7. Retrieve Table Programming <ol style="list-style-type: none"> a. Press Flash 66, Btn 2 to select Table 1. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus c. Press Btn 2 to select Table 1. d. Enter [1] + [*] + [HOLD]. <ul style="list-style-type: none"> - 1 is a suffix digit - * is a digit that informs <i>PathFinder</i> that this is a subscriber. 	<ol style="list-style-type: none"> e. Press Btn 9, enter [#9999999] + [HOLD]. <ul style="list-style-type: none"> - Btn 9 is the disconnect table - #9999999 is the disconnect code used by <i>PathFinder</i> 8. Press Flash 40, enter the CO line range, press [HOLD], press Btn 6, dial [4] on the dialpad, then press [HOLD] to enable Loop Supervision for all CO lines. 9. Program CO line ringing assignments. <ol style="list-style-type: none"> a. Press Flash 40 to enter CO line programming. b. Enter the CO line range, then press [HOLD]. c. Press Btn 11 to program ringing assignments. d. Enter [440] + [7] on the dial pad, then press [HOLD]. <ul style="list-style-type: none"> - 440 is the voice mail group - 7 is for day and night ringing 10. Perform the following at each station: <ol style="list-style-type: none"> a. Press [SPEED] twice. b. Press the flexible button to be programmed. c. Dial [440] on the keypad. d. Press the [ON/OFF] button. <p><i>NOTE -- You can adjust the volume level on each SLT port by using the volume up or down code. This provides additional control for both internal and external calls into <i>PathFinder</i>. Handset receiver gain feature must be turned on, Flash 05, Button 13.</i></p>
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infinite DVX III

Hardware Requirements

The following are the hardware requirements for the *infinite* DVX III in-band integration:

- ❑ One SLT port per *PathFinder* voice port. Each SL12 card provides twelve ports.
- ❑ One DTM4 installed on the SL12. DTM4 provides four DTMF receivers.
- ❑ In lieu of a DTM4, a 6 X 6 Combo card can be installed. This provides six DTMF receivers.
- ❑ One Ring Generator unit and a 48V power supply are needed.

Supported Features

The supported features of the *infinite* DVX III include:

- ❑ Station forward to a personal greeting.
- ❑ Message waiting On/Off LEDs.
- ❑ Stations can transfer a caller directly to a mailbox without supervising the call.
- ❑ Outdial (to a pager or specific number).
- ❑ Multiple Return to Operator.

Table 3-16: infinite DVX III - Configuration Setup

<ol style="list-style-type: none"> 1. From Station 100, enter the Admin code of **3226 (or dial ** and your password). 2. To disable the conference feature on SLT ports to be assigned to the VM group: press Flash 50, enter SLT extension range to be assigned to the VM group (XXX-XXX), then press Btn 3. 3. Press Flash 65, Btn 1 to enter VM group programming for VM group 440. 4. Press Flash 65, Btn 12 and enter the SLT ports into a VM group 440-447. 5. Press Flash 65, Btn 10 to set the Leave Table as Table 0 and Btn 11 to set the Retrieve Table as Table 1. 6. Leave Table Programming <ol style="list-style-type: none"> a. Press Flash 66, Btn 1 to select Table 0. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus 7. Retrieve Table Programming <ol style="list-style-type: none"> a. Press Flash 66, Btn 2 to select Table 1. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus c. Press Btn 2 to select Table 1. d. Enter [1] + [*] + [HOLD]. <ul style="list-style-type: none"> - 1 is a suffix digit - * is a digit that informs <i>PathFinder</i> that this is a subscriber. 	<ol style="list-style-type: none"> e. Press Btn 9, enter [#9999999] + [HOLD]. <ul style="list-style-type: none"> - Btn 9 is the disconnect table - #9999999 is the disconnect code used by <i>PathFinder</i> 8. Press Flash 40, enter the CO line range, press [HOLD], press Btn 6, dial [4] on the dialpad, then press [HOLD] to enable Loop Supervision for all CO lines. 9. Program CO line ringing assignments. <ol style="list-style-type: none"> a. Press Flash 40 to enter CO line programming. b. Enter the CO line range, then press [HOLD]. c. Press Btn 11 to program ringing assignments. d. Enter [440] + [7] on the dial pad, then press [HOLD]. <ul style="list-style-type: none"> - 440 is the voice mail group - 7 is for day and night ringing 10. Perform the following at each station: <ol style="list-style-type: none"> a. Press [SPEED] twice. b. Press the flexible button to be programmed. c. Dial [440] on the keypad. d. Press the [ON/OFF] button. <p><i>NOTE -- You can adjust the volume level on each SLT port by using the volume up or down code. This provides additional control for both internal and external calls into <i>PathFinder</i>.</i></p>
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infinite Mach 1

Hardware Requirements

The following are the hardware requirements for the *infinite* Mach I in-band integration:

- ❑ One SLIB port per *PathFinder* voice port. Each SLIB card provides six ports.
- ❑ One DTRU installed on the SLIB. DTRU provides two DTMF receivers.
- ❑ One RGU (ring generator) unit is needed. This can be an internal or external RGU.

Supported Features

The supported features of the *infinite* Mach I include:

- ❑ Station forward to a personal greeting.
- ❑ Message waiting On/Off LEDs.
- ❑ Stations can transfer a caller directly to a mailbox without supervising the call.
- ❑ Outdial (to a pager or specific number).
- ❑ Multiple Return to Operator.

Table 3-17: infinite Mach I - Configuration Setup

<ol style="list-style-type: none"> 1. From Station 100, enter the Admin code of **3226 (or dial ** and your password). 2. To disable the conference feature on SLT ports to be assigned to the VM group: press Flash 50, enter SLT extension range to be assigned to the VM group (XXX-XXX), then press Btn 3. 3. Press Flash 65, Btn 1 to enter VM group programming for VM group 440. 4. Press Flash 65, Btn 12 and enter the SLT ports into a VM group 440-447. 5. Press Flash 65, Btn 10 to set the Leave Table as Table 0 and Btn 11 to set the Retrieve Table as Table 1. 6. Leave Table Programming <ol style="list-style-type: none"> a. Press Flash 66, Btn 1 to select Table 0. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus 7. Retrieve Table Programming <ol style="list-style-type: none"> a. Press Flash 66, Btn 2 to select Table 1. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with <i>PathFinder's</i> 100 and 200 menus 	<ol style="list-style-type: none"> c. Press Btn 2 to select Table 1. d. Enter [1] + [*] + [HOLD]. <ul style="list-style-type: none"> - 1 is a suffix digit - * is a digit that informs <i>PathFinder</i> that this is a subscriber. e. Press Btn 9, enter [#9999999] + press [HOLD]. <ul style="list-style-type: none"> - Btn 9 is the disconnect table - #9999999 is the disconnect code used by <i>PathFinder</i> 8. Perform the following at each station: <ol style="list-style-type: none"> a. Press [SPEED] twice. b. Press the flexible button to be programmed. c. Dial [440] on the keypad. d. Press the [ON/OFF] button. <p><i>NOTE -- You can adjust the volume level on each SLT port by using the volume up or down code. This provides additional control for both internal and external calls into <i>PathFinder</i>.</i></p> <p>IMPORTANT -- If Call Screening is used with <i>Mach I</i>, then Auto Callback must be disabled in the phone system (FLASH 01, Button 17).</p>
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infinite DVXPlus II

Hardware Requirements

The following are the hardware requirements for the *infinite* DVX PLUS II in-band integration:

- ❑ One SLIB port per *PathFinder* voice port. Each SLIB card provides six ports.
- ❑ One DTRU installed on the SLIB. DTRU provides two DTMF receivers.
- ❑ One RGU (ring generator) unit is needed. This can be an internal or external RGU.

Supported Features

The supported features of the *infinite* DVX PLUS II include:

- ❑ Station forward to a personal greeting.
- ❑ Message waiting On/Off LEDs.
- ❑ Stations can transfer a caller directly to a mailbox without supervising the call.
- ❑ Outdial (to a pager or specific number).
- ❑ Multiple Return to Operator.

Table 3-18: infinite DVXPlus II - Configuration Setup

<ol style="list-style-type: none"> 1. From Station 100, enter the Admin code of **3226 (or dial ** and your password). 2. To disable the conference feature on SLT ports to be assigned to the VM group: press Flash 50, enter SLT extension range to be assigned to the VM group (XXX-XXX), then press Btn 3. 3. Press Flash 65, Btn 1 to enter VM group programming for VM group 440. 4. Press Flash 65, Btn 12 and enter the SLT ports into a VM group 440-447. 5. Press Flash 65, Btn 10 to set the Leave Table as Table 0 and Btn 11 to set the Retrieve Table as Table 1. 6. Leave Table Programming <ol style="list-style-type: none"> a. Press Flash 66, Btn 1 to select Table 0. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with PathFinder's 100 and 200 menus 7. Retrieve Table Programming <ol style="list-style-type: none"> a. Press Flash 66, Btn 2 to select Table 1. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with PathFinder's 100 and 200 menus 	<ol style="list-style-type: none"> c. Press Btn 2 to select Table 1. d. Enter [1] + [*] + [HOLD]. <ul style="list-style-type: none"> - 1 is a suffix digit - * is a digit that informs PathFinder that this is a subscriber. e. Press Btn 9, enter [#9999999] + press [HOLD]. <ul style="list-style-type: none"> - Btn 9 is the disconnect table - #9999999 is the disconnect code used by PathFinder 8. Perform the following at each station: <ol style="list-style-type: none"> a. Press [SPEED] twice. b. Press the flexible button to be programmed. c. Dial [440] on the keypad. d. Press the [ON/OFF] button. <p><i>NOTE -- You can adjust the volume level on each SLT port by using the volume up or down code. This provides additional control for both internal and external calls into PathFinder.</i></p> <p><i>Subscribers are defined as users with a mailbox and extension on PathFinder. The subscriber does not have to use both the mailbox and / or extension.</i></p>
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infinite DVXPlus III

Hardware Requirements

The following are the hardware requirements for the *infinite* DVX PLUS III in-band integration:

- ❑ One SLIB port per *PathFinder* voice port. Each SLIB card provides six ports.
- ❑ One DTRU installed on the SLIB. DTRU provides two DTMF receivers.
- ❑ One RGU (ring generator) unit is needed. This can be an internal or external RGU. One or two SLIBs is an internal RGU, and more than two SLIBs are an external RGU.

Supported Features

The supported features of the *infinite* DVX PLUS III include:

- ❑ Station forward to a personal greeting.
- ❑ Message waiting On/Off LEDs.
- ❑ Stations can transfer a caller directly to a mailbox without supervising the call.
- ❑ Outdial (to a pager or specific number).
- ❑ Multiple Return to Operator.

Table 3-19: infinite DVXPlus III - Configuration Setup

<ol style="list-style-type: none"> 1. From Station 100, enter the Admin code of **3226 (or dial ** and your password). 2. To disable the conference feature on SLT ports to be assigned to the VM group: press Flash 50, enter SLT extension range to be assigned to the VM group (XXX-XXX), then press Btn 3. 3. Press Flash 65, Btn 1 to enter VM group programming for VM group 440. 4. Press Flash 65, Btn 12 and enter the SLT ports into a VM group 440-447. 5. Press Flash 65, Btn 10 to set the Leave Table as Table 0 and Btn 11 to set the Retrieve Table as Table 1. 6. Leave Table Programming <ol style="list-style-type: none"> a. Press Flash 66, Btn 1 to select Table 0. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with PathFinder's 100 and 200 menus 7. Retrieve Table Programming <ol style="list-style-type: none"> a. Press Flash 66, Btn 2 to select Table 1. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with PathFinder's 100 and 200 menus 	<ol style="list-style-type: none"> c. Press Btn 2 to select Table 1. d. Enter [1] + [*] + [HOLD]. <ul style="list-style-type: none"> - 1 is a suffix digit - * is a digit that informs PathFinder that this is a subscriber. e. Press Btn 9, enter [#9999999] + press [HOLD]. <ul style="list-style-type: none"> - Btn 9 is the disconnect table - #9999999 is the disconnect code used by PathFinder 8. Perform the following at each station: <ol style="list-style-type: none"> a. Press [SPEED] twice. b. Press the flexible button to be programmed. c. Dial [440] on the keypad. d. Press the [ON/OFF] button. <p><i>NOTE -- You can adjust the volume level on each SLT port by using the volume up or down code. This provides additional control for both internal and external calls into PathFinder.</i></p> <p><i>Subscribers are defined as users with a mailbox and extension on PathFinder. The subscriber does not have to use both the mailbox and / or extension.</i></p>
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infinite DVXPlus IV

Hardware Requirements

The following are hardware requirements for the *infinite* DVX PLUS IV in-band integration:

- ❑ One SLIB port per *PathFinder* voice port. Each SLIB card provides twelve ports.
- ❑ One DTMF-A installed on the SLIB. DTMF-A provides four DTMF receivers.
- ❑ One RGU (ring generator) unit is needed.

Supported Features

The supported features of the *infinite* DVX PLUS IV include:

- ❑ Station forward to a personal greeting.
- ❑ Message waiting On/Off LEDs.
- ❑ Stations can transfer a caller directly to a mailbox without supervising the call.
- ❑ Outdial (to a pager or specific number).
- ❑ Multiple Return to Operator.

Table 3-20: infinite DVXPlus IV - Configuration Setup

<ol style="list-style-type: none"> 1. From Station 100, enter the Admin code of **3226 (or dial ** and your password). 2. To disable the conference feature on SLT ports to be assigned to the VM group: press Flash 50, enter SLT extension range to be assigned to the VM group (XXX-XXX), then press Btn 3. 3. Press Flash 65, Btn 1 to enter VM group programming for VM group 440. 4. Press Flash 65, Btn 12 and enter the SLT ports into a VM group 440-447. 5. Press Flash 65, Btn 10 to set the Leave Table as Table 0 and Btn 11 to set the Retrieve Table as Table 1. 6. Leave Table Programming <ol style="list-style-type: none"> a. Press Flash 66, Btn 1 to select Table 0. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with PathFinder's 100 and 200 menus 7. Retrieve Table Programming <ol style="list-style-type: none"> a. Press Flash 66, Btn 2 to select Table 1. b. Enter [0] + [TRANS] + [7] + [HOLD]. <ul style="list-style-type: none"> - 0 is a prefix digit - TRANS indicates a pause based on the pause timer - 7 is used in conjunction with PathFinder's 100 and 200 menus 	<ol style="list-style-type: none"> c. Press Btn 2 to select Table 1. d. Enter [1] + [*] + [HOLD]. <ul style="list-style-type: none"> - 1 is a suffix digit - * is a digit that informs PathFinder that this is a subscriber. e. Press Btn 9, enter [#9999999] + press [HOLD]. <ul style="list-style-type: none"> - Btn 9 is the disconnect table - #9999999 is the disconnect code used by PathFinder 8. Perform the following at each station: <ol style="list-style-type: none"> a. Press [SPEED] twice. b. Press the flexible button to be programmed. c. Dial [440] on the keypad. d. Press the [ON/OFF] button. <p><i>NOTE -- You can adjust the volume level on each SLT port by using the volume up or down code. This provides additional control for both internal and external calls into PathFinder.</i></p> <p><i>Subscribers are defined as users with a mailbox and extension on PathFinder. The subscriber does not have to use both the mailbox and / or extension.</i></p>
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4

Configuration Overview

The MAINT application allows you to configure and control *PathFinder*. The following menu options are available in MAINT:

- File
- Configuration
- Edit
- Reports
- Help

This chapter gives an overview of the entire configuration procedure, describes how to prepare *PathFinder* for configuration, introduces MAINT, and provides a summary of this configuration program's features and options.

Each of the menu options above is described in more detail in a later chapter.

Prerequisites

Before configuring *PathFinder*, make sure you complete the following:

- ☐ Installed the voice card(s)
- ☐ Installed the *PathFinder* software
- ☐ Tested all voice channels
- ☐ Connected at least 1 phone line to the voice card(s)



If you have problems accessing MAINT, refer to [Chapter 2, Installation](#).

Overall Configuration Procedure

After you have installed and configured all other components by completing the prerequisite steps above, you are ready to configure your *PathFinder* software. To configure your software, follow these steps:

1. Perform preliminary steps for configuration preparation. Refer to [Chapter 4, Configuration Overview](#).
2. Configure Access Levels and set up MAINT passwords. Refer to [Chapter 4, Configuration Overview](#).
3. Configure system settings. Refer to [Chapter 5, MAINT Application - System Settings](#).
 - ☐ Module
 - ☐ System
 - ☐ Telephony
 - ☐ Users
 - ☐ Class of Service
 - ☐ Menus
 - ☐ Time Control

.After configuration, you will be able to start up, run, and manage the operation of *PathFinder* via the *Monitor* application. Refer to [Chapter 7, Boom Box and Monitor Applications](#) for more information.

Configuration Preparation

To begin with, you must answer some first-time questions and set up basic voice functions in order to prepare *PathFinder* for configuration.

Defining Parameters

1. From the **Start** menu, select Programs > PathFinder Voice Processing > Maint.

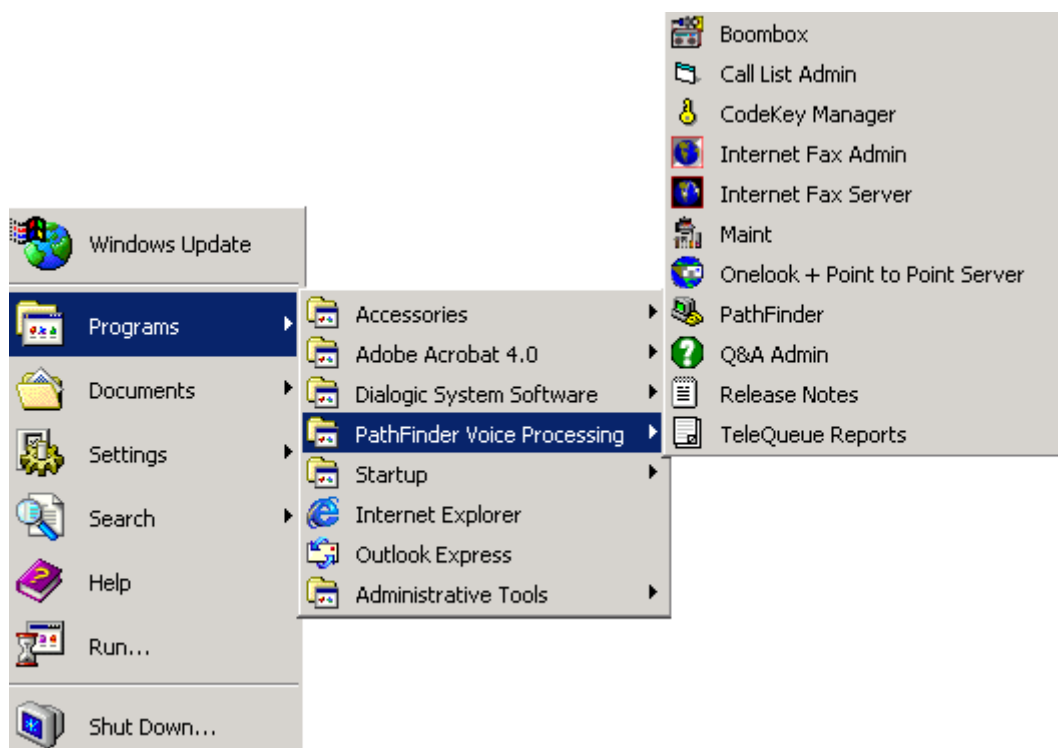


Figure 4-1: Program Group for *PathFinder*

- The *Loading Key* window displays to tell you that your software key is being loaded.

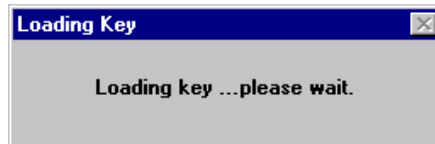


Figure 4-2: Loading Key Window



If your software key is not installed, the Software Key Not Found error message displays. If this happens, you must make sure that your software key is installed properly. Refer to [Chapter 2, Installation](#) for more information.

- In the *First Time Questions* window, click on **Edit Settings**.

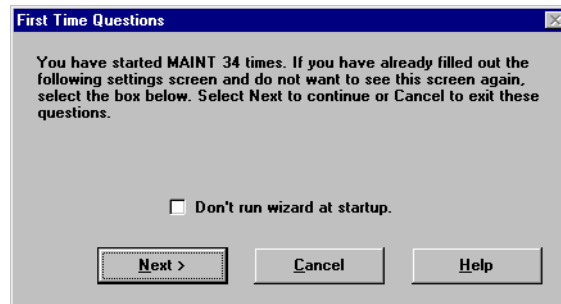


Figure 4-3: First Time Questions Window

- Click on **Next** to proceed to the second *First-Time Questions* window.



If you do not need to answer First-Time Questions anymore, select the "Don't run wizard at startup" checkbox.

5. In the *Voice Lines* field of the next *First Time Questions* window, indicate the number of voice lines on your system.

First Time Questions

Voice Lines

In order to properly setup your system, MAINT needs to know the number of voice lines installed in the system. This number is usually divisible by 4. Each D/4x card is 4 channels. Each D/12x card is 12 channels. The key shows you have 16 licensed channels.

Voice Lines:

Accept
Cancel
Help

Default Digit Lengths

In the boxes to the right, enter the default lengths for your mailbox, extension, and password numbers. The extension length is usually determined by your PBX. The mailbox length is commonly the same as the extension length. Password length is usually 4. You may change these values at any time by selecting Configuration - Module Settings - Digit Lengths.

Mailbox Length:
Extension Length:
Password Length:

Figure 4-4: First Time Questions Window

6. In the default digit lengths pane of the *First Time Questions* window, indicate the required parameters in the *Mailbox Length*, *Extension Length*, and *Password Length* fields. Refer to ["Digit Lengths" on page 5-1](#) for more information on these parameters.
7. Click on **Accept**. You are then prompted to configure PBX Integrations.
8. In the *PBX Integration* window, configure your system's PBX integration. Refer to ["PBX Integrations" on page 5-34](#) for more information on how to do this.
9. After you have finished configuring your PBX integration, you are returned to the main MAINT window. You must now continue the [Configuration Preparation](#) process by setting up voice functions.

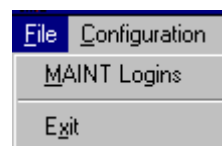
MAINT Overview

File Menu

The *File* menu provides access to the MAINT Logins function and MAINT passwords.

For a description of these functions, refer to [Access Levels & MAINT Passwords](#).

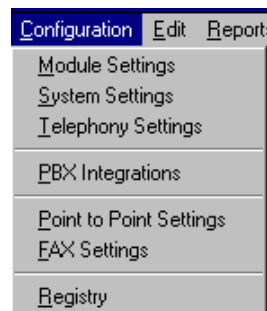
Choosing **Exit** from this menu quits MAINT.



Configuration Menu

The *Configuration* menu provides access to functions that set parameters concerned with the general operation of *PathFinder*, such as call transfer sequences and hang-up detection.

Before putting *PathFinder* into service, you must configure Module, System, and Telephony Settings, along with any other modules you may have purchased.



Refer to [Chapter 5, MAINT Application - System Settings](#) for more information on these options:

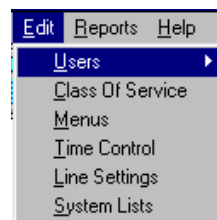
- ❑ Module Settings -- Digit Lengths, Record/Playback, Auto-Attendant, Logging, Operators, Voice Mail, Language, and Retries/TimeOuts; controls how the voice processing system behaves, including languages on *PathFinder*.
- ❑ System Settings -- Directories, Auxiliary Tasks, LPT/COM Ports, and Time Periods; controls the auxiliary tasks on *PathFinder*.
- ❑ Telephony Settings -- Voice Lines, MWI/Notification, Rings, Transfer Settings, Hang Up Detection, and Perfect Call; controls transfer settings and hang-up detection parameters.
- ❑ Other MAINT Settings -- PBX Integrations, any option module purchased, and the Registry.
- ❑ Refer to [Appendix C](#) to configure any optional modules that display in this menu, such as Point to Point or Fax settings.

Edit Menu

You can further configure *PathFinder* via MAINT's *Edit* menu.

Refer to [Chapter 5, MAINT Application - System Settings](#) for more information on these options:

- ❑ User Settings -- Defining and maintaining users' mailboxes and extensions
- ❑ Class of Service Settings -- Defining classes of service (COSs) that can be applied to groups of mailboxes
- ❑ Menu Settings -- Creating and modifying voice menus
- ❑ Time Control Settings -- Creating and editing time controls to activate or disable *PathFinder* features depending on time of day or day of week
- ❑ Line Settings -- Defining line settings to assign modules or applications to different phone lines
- ❑ Distribution Lists -- Refer to [Chapter 6, Lists and Reports](#) for creating automatic distribution of voice messages to lists of specific users



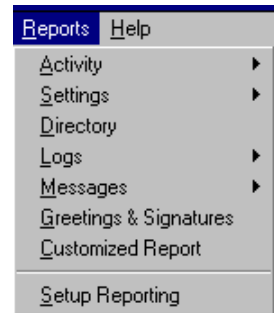
Reports Menu

The *Reports* menu provides access to a configuration of a complete range of administrative and management reports on *PathFinder* operation. Reports are grouped according to the immediate selections shown in the menu.

Highlighting a menu item with an arrow to the right of it shows the types of reports which you can configure.

Refer to [Chapter 6, Lists and Reports](#) for more information on these report options:

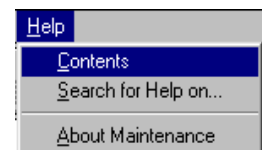
- ☐ Activity Reports
- ☐ Settings Reports
- ☐ Directory Reports
- ☐ Logs Reports
- ☐ Messages Reports
- ☐ Greetings & Signatures Reports



Help Menu

The *Help* menu provides access to standard help functions. If you're unsure of screen selections or any aspect of *PathFinder* operation, go to the *Help* menu's *Contents* option for general orientation, or use the *Search for Help on...* option for help related to a specific word, term, or search key.

You can also click on the *Help* button in the MAINT toolbar or press *F1* in most windows to display context-sensitive help.



MAINT Toolbar

The MAINT toolbar provides access to some of the most often-used *PathFinder* functions, all of which can also be selected from menu bar options. For more information on configuring the following system settings, refer to [Chapter 5, MAINT Application - System Settings](#).

Subscriber Settings Button



Clicking the **Subscriber Settings** button provides the same function as selecting Edit > User > Show Users from the menu bar. When you click on this button, the *Select Subscriber to Edit* window displays. From this window, you can create, modify, or delete subscribers and settings. Subscribers are defined as *PathFinder* users who have both a mailbox and an extension.

Class of Service Button



The **Class of Service** button causes the *Select COS to Edit* window to display, the equivalent of selecting Edit > Class of Service from the menu bar. A Class of Service (COS) defines settings that apply to a group of users. Clicking this button allows you to create, modify, or delete a COS.

Voice Menu Button



Clicking the **Voice Menu** button is the same as selecting Edit > Menus from the menu bar. Clicking this button causes the *Select Menu to Edit* window to appear. From this window, you can create a new voice menu, or you can modify or delete an existing one.

Time Control Button



The **Time Control** button causes the *Select Time Control to Edit* window to display, just as if you had selected Edit > Time Control from the menu bar. Time controls allow you to manipulate *PathFinder* settings based on day, time of day, and day of the week. The *Select Time Control to Edit* window allows you to create, edit, or delete a time control.

Line Settings Button



Clicking the **Line Settings** button is the same as selecting Edit > Line Settings from the menu bar. Clicking this button causes the *Line Settings* window to display. From this window, you can assign modules or applications to different phone lines.

Exit Button



Clicking the **Exit** button exits you from the program, the same as selecting File > Exit from the menu bar. If you click on this button, you exit MAINT.

Special Characters & Strings

The special characters and strings supported throughout MAINT are:

Table 4-1: Special Characters & Strings

Character/String	Character Name	Definition
&	ampersand	Flash-hook
,	comma	Pause
*	asterisk *	DTMF star
#	number sign #	DTMF pound
@Ext	--	At an extension
0 through 9	numbers 0 through 9	DTMF keys

Access Levels & MAINT Passwords

The MAINT application allows you to configure *PathFinder*. This chapter describes the functions available in MAINT's *File* menu, which includes options for configuring MAINT logins.

MAINT Logins

In many installations, more than one person interacts with *PathFinder*. Some people only generate system reports, while others perform high-end maintenance activities.

MAINT Logins allow you to create a list of users that are authorized to perform *PathFinder* maintenance functions, and assign an access level to each of those users.

Access Levels

Assigning levels of access gives the system administrator the ability to grant only the access each individual needs. By requiring a person to enter a name and password when starting MAINT, *PathFinder* knows to whom complete access is granted and to whom restricted access is granted. Access levels range from one to nine and have the following privileges.

Table 4-2: System Access Levels

Access Level	Privileges
LEVEL 9 - Unlimited Supervisor Access	Level 9 users have access to all MAINT menus and options. Level 9 users also can view and change mailbox and/or extension passwords.
LEVEL 8 - Limited Supervisor Access	<p>Level 8 users have access to all MAINT menus and options, with the following restrictions:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Cannot edit MAINT logins <input type="checkbox"/> Cannot write or confirm INI files <input type="checkbox"/> Cannot re-index databases <input type="checkbox"/> Cannot select phone system (PBX Integrations) <input type="checkbox"/> Cannot configure Point-to-Point (an optional module) <input type="checkbox"/> Cannot configure Engine detection <input type="checkbox"/> Cannot edit INI settings <input type="checkbox"/> Cannot edit the Registry
LEVELS 6 and 7 - Administrator Access	<p>Users with Administrator Access have the same access privileges as level 8, with the following restrictions:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Cannot modify any Module, System, or Telephony settings <input type="checkbox"/> Cannot view mailbox and/or extension passwords, but <i>can</i> change them <input type="checkbox"/> Cannot edit fax settings
LEVELS 1 to 5 - Limited Administrator Access	Users with Limited Administrator Access have the same access privileges as levels 6 and 7, with an additional restriction: users with Limited Administrator Access cannot view or change mailbox and/or extension passwords.

Setting MAINT User Passwords

To set user passwords:

1. Select **MAINT Logins** from the *File* menu. This displays a window similar to the following:

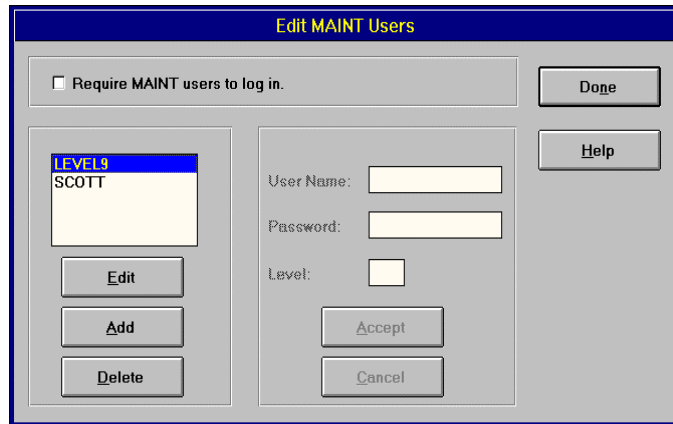


Figure 4-5: Edit MAINT Users Window

2. To *add* a new MAINT user, click on **Add**. To *edit* an existing MAINT user's password, click on **Edit**.
3. If you are adding a new MAINT user, enter the user's User Name, Password, and access Level, and click on **Accept**. If you are editing an existing MAINT user, change those items as needed and click on **Accept**.
4. Click on **Done** when you are finished with this function.



A few important notes about passwords:

- ☐ Once a password has been defined, you must enter it correctly every time you wish to access **PathFinder**.
- ☐ **PathFinder** passwords are case-sensitive. For example, *PaSSWoRd* is not the same as *PASSWORD*.

5

MAINT Application - System Settings

The MAINT application allows you to configure and control *PathFinder*. The following menu options are available in MAINT:

- ☐ File
- ☐ Configuration
- ☐ Edit
- ☐ Reports
- ☐ Help

This chapter gives an overview of the entire configuration procedure, describes how to prepare *PathFinder* for configuration, introduces MAINT, and provides a summary of this configuration program's features and options.

A detail description of the menu options mentioned above are also provided in this chapter.

Module Settings

The MAINT application allows you to configure *PathFinder*. This section describes the module settings functions available in the *Configuration* menu in MAINT.

The *Configuration* menu provides access to module settings configuration, a group of functions used to control how *PathFinder* modules interact with the user. To access the module configuration options, select Module Settings from the *Configuration* menu. The following buttons display near the top of the window:

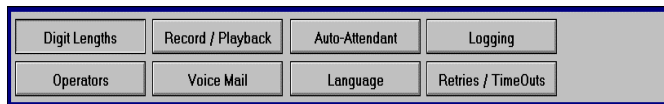


Figure 5-1: Module Settings Toolbar

Click on any of the buttons on this *Module Settings* toolbar to access the corresponding configuration options.

Digit Lengths

The Digit Lengths settings determine the number of digits used in mailboxes, extensions, and passwords. *PathFinder* uses this information to determine how many digits to expect when asking a caller for a mailbox, extension number, or password.

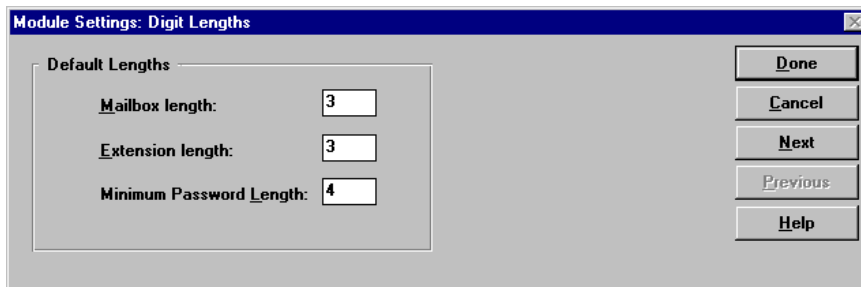


Figure 5-2: Module Settings: Digit Lengths Window

Field	Indicates default length for...
Mailbox Length	Mailbox Numbers (maximum 7 digits). This is usually set the same as the extension length. Leave this blank if allowing variable-length mailboxes.
Extension Length	Telephone Extension Numbers (maximum 7 digits). Leave this blank if allowing variable-length extensions. This number may be determined by your phone system.
Minimum Password Length	Password Digits (maximum 9 characters).



EXAMPLES -- Digit length for mailboxes, extensions, and passwords:

- ☐ 2 digits -- from 10 to 99
- ☐ 3 digits -- from 100 to 999
- ☐ 4 digits -- from 1000 to 9999
- ☐ 6 digits -- from 100000 to 999999

Record/Playback

The Record/Playback settings are used to access *PathFinder*'s recording and playback settings.

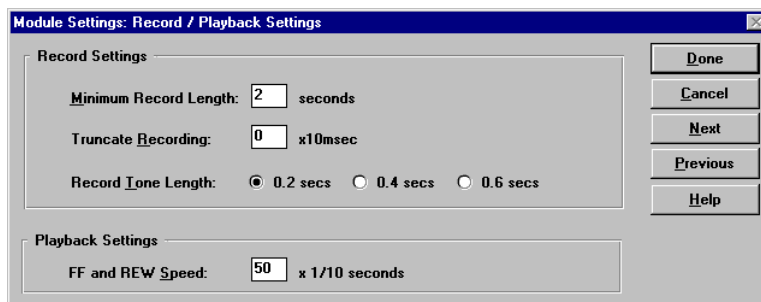


Figure 5-3: Module Settings: Record/Playback Settings Window

Field	Parameter determines...
Minimum Record Length	This field determines the shortest allowable length of a recorded message. A value of 2 seconds is recommended as the minimum message length. The range for this field is 1 to 999.
Truncate Recording	This parameter determines how much time <i>PathFinder</i> trims from the end of a mailbox message whose recording was terminated by a silence or tone detection. <i>PathFinder</i> automatically removes trailing tone and silence at the end of a message, so it is recommended to leave this value at 0 seconds. Increase this value if the end of your messages contain dial-tone noise or excessive silence. <i>NOTE: This setting is only used if <i>PathFinder</i> relies on silence or non-silence for hang-up detection, and is not used for phone systems that employ loop current hang-up.</i>
Record Tone Length	This setting determines the duration of the beep tone that <i>PathFinder</i> gives callers before recording a message.
FF and REW Speed	The information in the <i>FF and REW Speed</i> field sets the time intervals that are skipped in a message when the designated REW (7) or FF (8) keys on the telephone key pad are pressed. The recommended interval is 50 to 100 tenths of a second. The range for this field is 0 to 999 tenths of a second.

Auto-Attendant

The Auto-Attendant settings provide access to caller-related Call Queue Interval and Directory configurations.

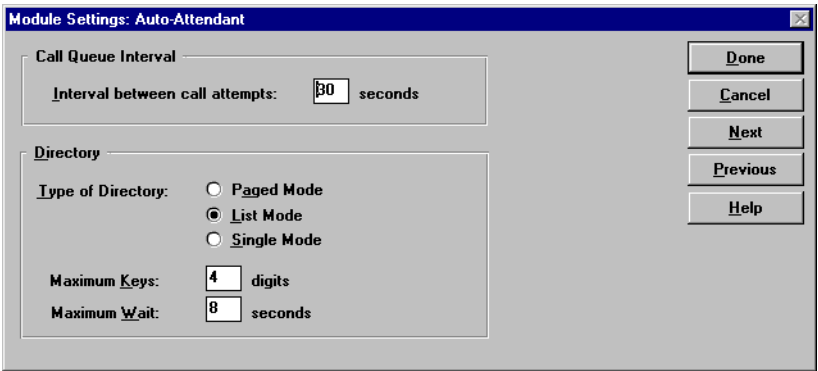


Figure 5-4: Module Settings: Auto-Attendant Window

Field	Description
Call Queue Interval	<p>The call queue interval specifies the amount of time before <i>PathFinder</i> retries an extension when a caller is in queue. A ten to twenty second interval is recommended. The range for this field is 1 to 999.</p> <ul style="list-style-type: none"><input type="checkbox"/> Call queue interval is dependent on the extension’s class of service.<input type="checkbox"/> Call queuing is disabled unless it is manually enabled in the Class of Service configuration.

Field	Description
Directory Types	<p>The Directory (also called the System Directory) is a list of users in <i>PathFinder</i>. Directory functions describe how the company directory should be configured.</p> <ul style="list-style-type: none">❑ Paged Mode -- Gives the caller several matching entries, then a caller must press a key to go to the next page, or set, of entries. This is a hybrid between List and Single mode. <i>PathFinder</i> presents only eight matches at a time, and the caller presses a number one through eight to choose a match. The caller can press 9 to go to the next page, or set, of eight matches.❑ List Mode -- Provides a caller with all matching entries in a complete list. Each matching name and extension (or mailbox) is played in order. At the end of the list, <i>PathFinder</i> prompts the caller to enter the selected extension number. If there are one hundred matches, all one hundred names and extensions are played. The caller can enter the desired extension or mailbox number at any time during the list playback. NOTE: <i>List mode can reveal the entire list of extensions and/or mailboxes.</i>❑ Single Mode -- Provides the caller with a list of all matching entries, one at a time. Callers must press a key to indicate whether they want to select the most recently read name or hear the next matching entry. Single mode presents only two options to the caller for each match.
Maximum Keys	<p>This is the maximum number of digits that the caller can enter before <i>PathFinder</i> begins to look up directory entries. The range for this field is 1 to 999.</p>
Maximum Wait	<p>This is the maximum amount of time that <i>PathFinder</i> waits for the Maximum Keys while a caller is entering numbers (to spell the user/subscriber's name on the keypad). The range for this field is 1 to 999.</p>

Logging

PathFinder continuously generates detailed information on its operation.

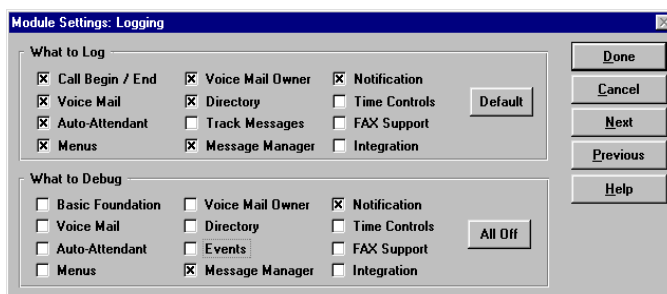


Figure 5-5: Module Settings: Logging Window

What To Log

The raw data are a chronological history of all events that occur in *PathFinder* and can be used to evaluate real-time performance. Raw data include time, date, line, module, and a description of each event. These raw data can be formatted into a variety of reports that help measure performance. Refer to *"Logs Reports" on page 6-31* for more information on these reports.

Log Files -- The Logging settings allow you to select which modules send information to the log files.

- ❑ The fewer modules selected, the less disk storage space needed and the faster *PathFinder* operates.
- ❑ The more modules selected, the greater the amount of information available to help diagnose problems and to generate reports.

Each day's activity log output to the disk is stored in a unique file in the log sub directory (\HELLONT\LOGS). The file name of each daily activity log has the following format:

DL<YY><MM><DD> . LOG

EXAMPLE -- The log file for February 23, 1999 would be called
DL992302 . LOG

Log Option	Activity
Call Begin/End*	The start and end of calls.
Voice Mail*	All voice mail activities, except owner activities.
Auto-Attendant*	All call transfer activities.
Menus*	All menu selections.
Voice Mail Owner*	Mailbox owner activities.
Directory	Accesses of the company directory.
Track Messages	Complete logging of message file names and when messages are deleted, created, saved, etc. Used to track complaints of lost messages, etc.
Message Manager	Turns on logging of message manager activities.
Notification*	<i>PathFinder</i> notification actions.
Time Controls*	Actions controlled by time control files.
Fax Support*	All fax support activities.
Integration*	Tracks information received from the phone system.
Default	The Default button activates the Log Option settings indicated with an asterisk (*).

What To Debug

The Logging settings also include debugging options. Module debugging is a sophisticated diagnostic tool used to resolve problems with *PathFinder*. DO NOT run *PathFinder* with Module Debugging on, as it can slow performance. Use debugging only as needed.



Once debugging has been activated, it generates large amounts of data that can potentially fill up the disk drive. Select specific module debugging options only at the request of Vodavi Technical Support.

Module debugging parameters include the following:

Field	Description
Basic Foundation	Tracks basic information from the system, including which modules are loaded into memory.
Voice Mail	Tracks all voice mail activities, including length of message and hang-up type.
Auto-Attendant	Logs information regarding transfers, including call results.
Menus	Detects what menu prompt is played and what keys each caller presses.
Voice Mail Owner	Tracks mailbox owner activities, including what messages are played, saved and deleted.
Directory	Oversees directory activities, including what keys are pressed when a caller accesses the directory.
Events	Tracks events, including pager and message waiting indicator notification.
Message Manager	Tracks events as the message manager processes them.
Notification	Tracks notification of messages, including notification strings and retries.
Time Controls	Provides detailed information regarding time control processing.
Fax Support	Monitors the fax support module.
Integration	Tracks information packets received from the telephone system regarding transfers.
All Off	Clicking this button deactivates all debugging options.

Operators

The Operators settings are used to specify the dialing sequence needed to transfer a call to the operator.

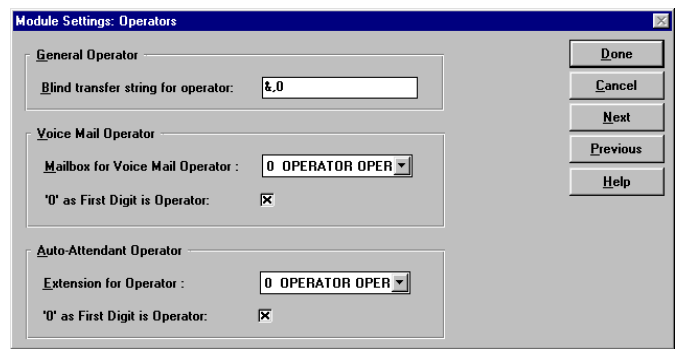


Figure 5-6: Module Settings: Operator Window

There are several different types of operators in *PathFinder*. The operators are called when a caller dials 0 at different times during *PathFinder* operation. All operator settings are defined in the Registry. There are four operators used in the system, as follows.

Field	Description
General Operator	<p>The General Operator is the global default operator for all operator functions. This is the dial sequence sent to the phone system to reach the operator (0). In most situations, this is the sequence dialed when the caller dials 0.</p> <p>You need to specify the entire blind transfer string, including flash-hook. Change the General Operator parameter only if necessary for your phone system. Although your implementation may differ, the normal string would be & , 0 .</p> <p><i>NOTE -- Refer to “Special Characters & Strings” on page 4-9 for information other special characters supported in MAINT.</i></p>

Field	Description
Voice Mail Operator	<p>The settings in the voice mail operator pane determine what happens when a caller presses 0 while using voice mail. If an operator is designated, a time-out or 0 key pad entry transfers the caller to the designated operator. The operator can then provide caller assistance.</p> <ul style="list-style-type: none"> ❑ The 0 as First Digit is Operator parameter is allowed here because some phone systems use 0 as the first digit for extensions. Make sure that this option is selected unless you have such a phone system. ❑ If None is indicated in the <i>Voice Mail Operator</i> field, <i>PathFinder</i> uses the General Operator setting for any 0 dialed <p><i>NOTE -- Most phone systems do not allow extension numbers to start with 0. Typically, the digit 0 should only be used for operator assistance.</i></p>
.Auto-Attendant Operator	<p>The Auto-Attendant Operator determines what actions are taken when a caller presses 0 while in the auto-attendant module. If an operator is designated, a time-out or 0 keypad entry transfers the caller to the designated operator. The operator then provides caller assistance.</p> <ul style="list-style-type: none"> ❑ If None is indicated in the <i>Voice Mail Operator</i> field, <i>PathFinder</i> uses the General Operator setting for any 0 dialed. ❑ As with the Voice Mail Operator, the 0 as First Digit is Operator parameter is allowed here because some phone systems use 0 as the first digit for extensions. Make sure that this option is selected unless you have such a phone system.
Personal Mailbox Operator	<p>The Personal Mailbox Operator functions are defined in the Mailbox Settings options for each user/subscriber. To configure Personal Mailbox Operator options:</p> <ul style="list-style-type: none"> ❑ Select from the MAINT menu bar Edit > Users > Edit Users. ❑ Click on Mailbox Settings, then edit the <i>Operator</i> field. Refer to <i>"Mailbox Settings" on page 5-49</i> for more information.

Voice Mail

Voice Mail settings are used to configure the voice mail module.

Module Settings: Voice Mail

Message Clean Up

Time : 2330

Day of Week: ☒ Monday ☒ Tuesday ☒ Wednesday ☒ Thursday ☒ Friday ☒ Saturday ☒ Sunday

MWI Refresh

Time :

Pager Mailbox Delay

Delay : 10 seconds

Notification

Notify Send Keys:

Quick Jump Key

DTMF Key : #

Password Attempts

Attempts : 2

Done

Cancel

Next

Previous

Help

Figure 5-7: Module Settings: Voice Mail Window

Field	Description
Message Clean Up	<p>Specify when <i>PathFinder</i> is to delete messages that have exceeded the retention period. (Refer to “Message Retention” on page 5-65.)</p> <p><i>PathFinder</i> performs this housekeeping function at the time specified in this window for each day of the week selected. Message cleanup can be set for a specific day of the week or for every day, and should occur when the phone system is inactive, such as between midnight and 3:00 a.m.</p>
MWI Refresh	<p>Some phone systems clear all message waiting indicators at a specific time each day. The MWI Refresh setting should be set for a time <i>after</i> such a phone setting has cleared all message waiting indicator lights.</p> <div><div><input type="checkbox"/> If you have a phone system that clears all message waiting indicators at a specific time each day, then in the <i>Time</i> field in the MWI refresh pane, enter the time of day when <i>PathFinder</i> should re-light any message waiting indicator lights for extensions that still have messages waiting.</div><div><input type="checkbox"/> If your phone system does not periodically clear message waiting indicators but instead leaves message waiting indicators illuminated until users/subscribers retrieve their messages, then leave this field blank.</div></div>

Field	Description
Quick Jump Key	<p>Specify the touch-tone key a caller can press to bypass leaving a message once a mailbox greeting has begun.</p> <p>When a caller presses the defined key, <i>PathFinder</i> jumps to a menu of alternate options (e.g., "Press 1 to try another mailbox").</p>
Pager Mailbox Delay	<p>Specify the amount of time <i>PathFinder</i> delays when dialing a pager number for notification. This value defines the delay after dialing the pager number and before dialing the mailbox number. If using a command file for notification, this value is not used.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Refer to Appendix A for more information on command files. <input type="checkbox"/> Refer to "Notification Settings" on page 5-73 for more information on pager notification.
Password Attempts	<p>Enter the number of times a caller is allowed to try entering a password to gain mailbox access. After this number is exhausted, the caller is prompted to enter a different mailbox number. The range for this field is 1 to 9.</p> <p><i>PathFinder</i> keeps track of such attempts in its logs, which can help determine if an unauthorized user is attempting to gain access to <i>PathFinder</i>.</p>
Notification	<p>On some integrated systems, <i>PathFinder</i> can accidentally become connected to itself and create a repeating loop. For example, assume that <i>PathFinder</i> is attempting to notify an extension owner of new messages:</p> <p>When it dials the extension, that extension is busy; therefore,</p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>PathFinder</i> is forwarded to the extension's mailbox (in other words, <i>PathFinder</i> calls itself). <input type="checkbox"/> <i>PathFinder</i> leaves a notification message in the extension's mailbox. <input type="checkbox"/> As a result, <i>PathFinder</i> attempts to once again notify the mailbox owner of the new notification message in his or her mailbox, creating a repeating loop. <p>The Notify Send Keys are a series of DTMF key signals that <i>PathFinder</i> sends with the message notification that cancel the incoming channel and end the loop.</p> <p>Since the keys are sent for all voice notifications, some users may find this a nuisance, and the recommended setting is blank.</p>

Language

PathFinder provides optional language support modules for a number of different languages.

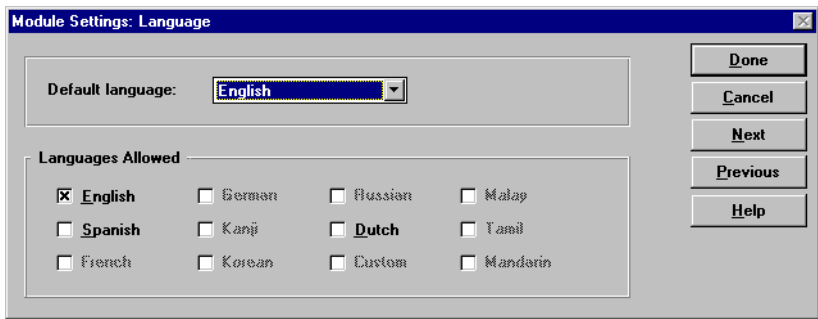


Figure 5-8: Module Settings: Language Window

Field	Description
Default Language	Use this menu to select the language that <i>.PathFinder</i> uses as the default language.
Languages Allowed	The following languages may be available: <div><input type="checkbox"/> English <input type="checkbox"/> German <input type="checkbox"/> Russian <input type="checkbox"/> Malay <input type="checkbox"/> Spanish <input type="checkbox"/> Kanji <input type="checkbox"/> Dutch <input type="checkbox"/> Tamil <input type="checkbox"/> French <input type="checkbox"/> Korean <input type="checkbox"/> Custom <input type="checkbox"/> Mandarin</div>



Language modules are optional modules that are purchased separately. You must purchase the optional multilingual module and language prompts in order to use this feature.

Retries/Timeouts

The Retries/Timeouts settings determine how *PathFinder* handles erroneous input from callers.



*Some modules use these settings, but basic *PathFinder* does not. Menus have their own retries and time-out settings that take precedence when they are active.*

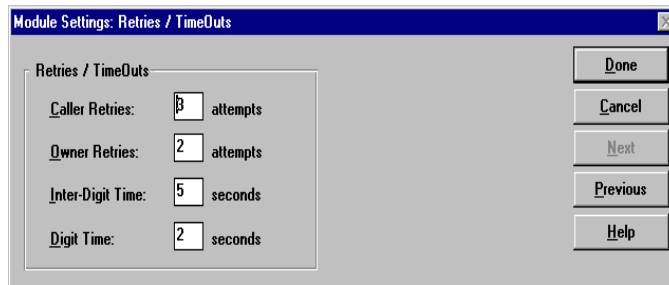


Figure 5-9: Module Settings: Retries/TimeOuts Window

RETRY ATTEMPTS -- You should set the number of retries to a number high enough so that callers who are unfamiliar with *PathFinder* are not prematurely dropped.

TIME OUT INTERVALS -- Set the timeout option to an amount of time long enough for the caller to complete the longest operation on *PathFinder*. Because mailbox/extension owners are generally more familiar with *PathFinder* than outside callers, it is recommended that they be given fewer retries and a shorter time-out interval than outside callers.

Field	Description
Caller Retries	Number of times a caller can retry entering an option. The range for this field is 1 to 999.
Owner Retries	Number of times a mailbox owner is permitted to retry entering an option. The range for this field is 1 to 999.
Inter-Digit Time	Length of time between digits. Used in cases where the length of the entry is unknown. <i>PathFinder</i> assumes the caller is finished entering digits if this length of time passes after the most recent digit is entered. The range for this field is 1 to 999.
Digit Time	<p>Digit Time is the length of time that a caller can press a digit before <i>PathFinder</i> assumes that the digit is being repeated. The range for this field is 1 to 999.</p> <p>EXAMPLE: Assume that Digit Time is set to three seconds:</p> <ul style="list-style-type: none">□ If a caller presses and holds the 7 key for two seconds, <i>PathFinder</i> will assume that the caller has entered 7.□ If a caller presses and holds the 7 key for four seconds (one second more than the three second digit time), <i>PathFinder</i> will assume that the caller has entered 77.□ If a caller presses and hold the 7 key for seven seconds (one second more than <i>twice</i> the three-second digit time), <i>PathFinder</i> assumes that the caller has entered 777. <p>In other words ... if Digit Time is set to X seconds, then for each X seconds that the caller presses a digit key, <i>PathFinder</i> assumes that the caller has pressed that digit key once.</p>

System Settings

The *PathFinder Configuration* menu provides access to System Settings configuration, a group of functions used to maintain the *PathFinder* directory structure, identify communications and printer ports, and define the use of non-voice channels. To access the module configuration options:

- ❑ Select **System Settings** from the *Configuration* menu.
- ❑ Click on any of the buttons on this *System Settings* toolbar to access the corresponding configuration options.



Figure 5-10: System Settings Toolbar

Directories

The Directories function defines paths so that *PathFinder* can locate system files if they are placed in directories other than the defaults.

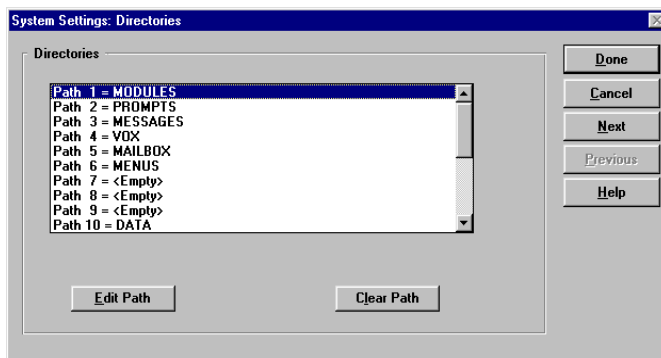


Figure 5-11: System Settings: Directories Window



DO NOT alter these subdirectories unless instructed to do so by Vodavi Technical Support.

Auxiliary Tasks

The Auxiliary Tasks function provides for definition of auxiliary channels. Auxiliary channels are used to pass non-voice data as in a telephone integration setting (Message Manager or SMDI integration controller).

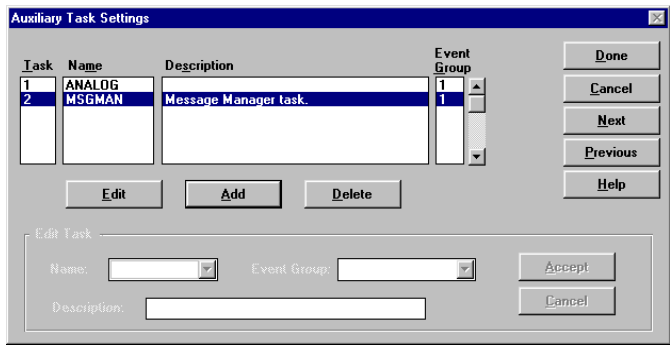


Figure 5-12: Auxiliary Task Settings Window

Making Changes

You can alter the Auxiliary Task settings by highlighting the task and selecting the appropriate action: Edit / Add / Delete.

When editing or adding a task (with a maximum of fifteen tasks), complete fields at the bottom of the window as follows:

Field	Description
Task	The system assigns the next available task number.
Name	Select or type the appropriate telephone system name.
Description	Enter a description for this auxiliary task, to identify it in the application and in reports.
Event Group	Select the group for which this line is to handle the action. Note that any event group you specify must have at least one line assigned to it in the Line Settings configuration (refer to "Line Settings" on page 5-102). <input type="checkbox"/> If Task is Message Manager , <i>Event Group</i> must be 1 . <input type="checkbox"/> If Task is other than Message Manager , define <i>Event Group</i> as 6 or higher.

LPT / COM Ports

The LPT/COM Ports window is used to identify which printer port and which COM port are used by the system.

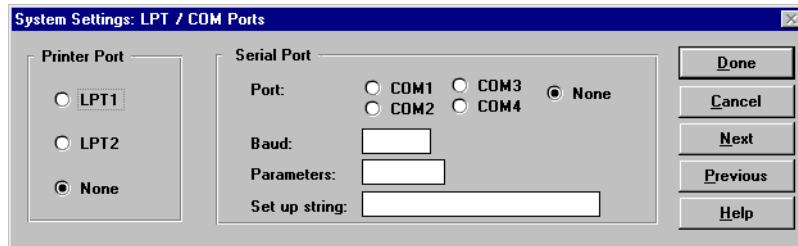


Figure 5-13: LPT / COM Port Settings Window

Printer Port

Select the proper printer port - LPT1, LPT2, or None. Use LPT1 if a printer is connected to your system, unless instructed otherwise by Enhanced Systems or your dealer. Attach the software key to LPT2.

Serial Port

Select the proper COM port - COM1, COM2, COM3, or None. Documentation specific to your application (e.g., paging and telephone integration applications) will specify if you need to set serial port parameters.

Time Periods

The Time Period settings provide definitions of the time periods for *PathFinder*. They are used by some IVR modules to control how *PathFinder* operates for a given time of day.

Voice Mail, Auto-Attendant, & Menuing Time Periods

Time Periods are not used in the voice mail, Auto-Attendant or menuing modules. To control how the voice mail, Auto-Attendant, and menu process a call, use Time Control settings (refer to [“Time Control Settings” on page 5-93](#)).

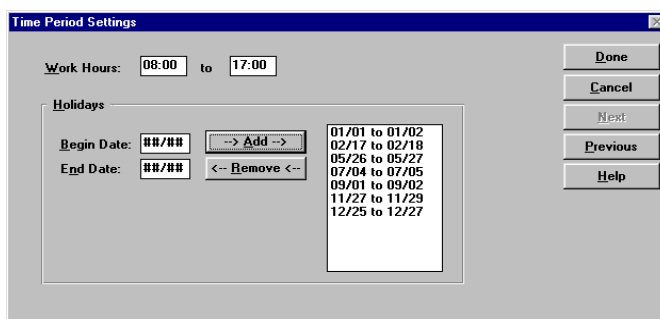


Figure 5-14: Time Period Settings Window

Period Definitions

WORK HOURS -- Defines the start and end of the business day. Enter the hour and minutes using GMT format (24 hour clock).

Example: 1:30 p.m. is entered as 13 : 30.

HOLIDAYS -- Define the start and end dates for holidays. You can add and remove dates from this list. You can define a maximum of 20 holidays.

Editing IVR Time Period Settings

To edit an existing work hour setting, perform the following steps:

1. Highlight the time to be changed.
2. Enter the new hour and minutes in GMT format.
3. To enter a holiday date:
 - Highlight the *Begin Date* field and enter the month and day of the holiday (01/01).
 - Then, highlight the *End Date* field and enter the end month and day (01/02).
 - Click on **Add**.

4. To remove a holiday setting:
 - ☐ Highlight the dates in the box.
 - ☐ Click on **Remove**.

Telephony Settings

The MAINT application allows you to configure *PathFinder*. This section describes the telephony configuration functions available in the *Configuration* menu in MAINT.

The *PathFinder* Configuration menu offers access to Telephony Settings configuration, a group of functions used to control general telephony operation of *PathFinder*. Telephony Configuration options are displayed in the buttons near the top of the screen when you select **Telephony Settings** from the *Configuration* menu.



Figure 5-15: Telephony Settings Toolbar

Click on any of the buttons on this *Telephony Settings* toolbar to access the corresponding configuration options.



Refer to "*Special Characters & Strings*" on page 4-9 for a listing of special characters that are supported by *PathFinder*.

Voice Lines

The Voice Lines function displays the number of voice lines for which your *PathFinder* installation is configured. Voice lines are those that can be dialed.

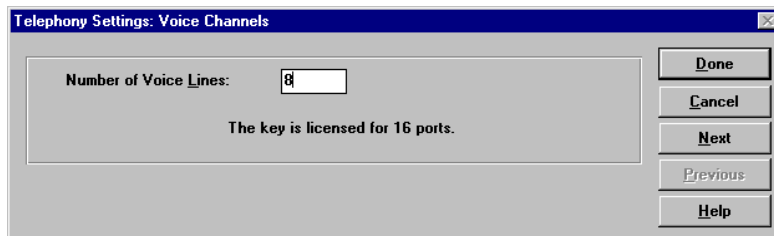


Figure 5-16: Telephony Settings: Voice Channels Window

The number of voice lines that are displayed is the number of active voice lines on your *PathFinder* implementation. The text below the *Number of Voice Lines* field ("The key is licensed for x ports") indicates how many ports the software key allows.

MWI/Notification

The MWI / Notification function provides for control over message waiting indicator and message notification functions.

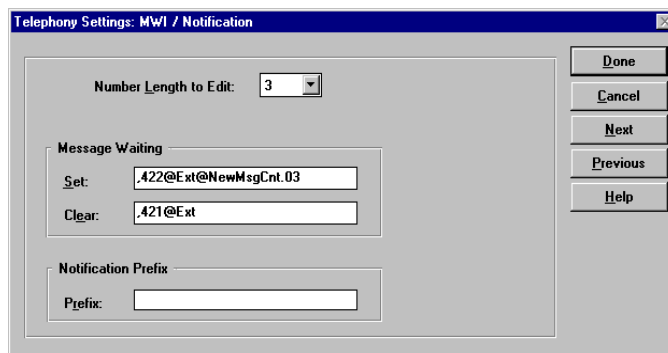


Figure 5-17: Telephony Settings: MWI/Notification Window

Number Length to Edit

Number Length to Edit shows the current length you are editing. If you are using multiple number lengths and need to view a different one, select it there.

Message Waiting



MWI sequences can be controlled by COS. Refer to "Message Waiting Indicator (MWI) Strings" on page 5-74 for more information.

There are several methods for notifying a station of a new message, such as MWIs or a stutter dial tone. The *Message Waiting Set* and *Clear* settings define how *PathFinder* notifies the station of a waiting message.



If your phone system does not support message waiting indicators, leave these fields blank.

Configure these settings in the following fields:

Set -- Enter the dialing sequence necessary to activate a message waiting indicator for any extension that has one. Message waiting indication must be accessible by dialing a sequence of numbers from a single line telephone for *PathFinder* to make use of this capability.

- ☐ Use the command @Ext to specify where the extension should be located. For example, use &, *1, @Ext, #0 to set the lamp on extension 345. Note that @Ext is case-sensitive.
- ☐ If the phone system supports message count (as opposed to just a message waiting light), use the command @NewMsgCnt to send the number of messages.



This option works on some Vodavi Telephone Systems.

Clear -- Enter the sequence that turns off the message waiting light.

- ☐ Use the command @Ext to specify where the extension should be located. For example, use &, *1, @Ext, #0 to clear the lamp on extension 345. Note that @Ext is case-sensitive.
- ☐ If the phone system supports message count (as opposed to just a message waiting light), use the command @000 to clear the MWI.

Notification Prefix

In the *Notification Prefix* field, type the command string required by the telephone system prior to dialing a notification number.

- ❑ Refer to [“Mailbox Settings” on page 5-49](#) for more information on configuring notification in the Users Settings.
- ❑ Refer to [Appendix A](#) for more information on command scripts.



This setting is used in a command file when using the `DialPrefixforWhereField`; otherwise, it is not called when a command file is being used for notification. Refer to [“Notification Settings” on page 5-73](#) for more information.

Hang Up Detection

Hang-up Detection allows *PathFinder* to detect when callers hang-up during a call. Unless properly set, *PathFinder* is unable to detect a hang-up condition.

Detection Settings

Telephony Settings: Hang Up Detection

Continuous Detection

Silence : seconds of silence

Non-silence : seconds of non-silence

Re-Order Detection

Silence Interval: x10 msec of silence

Tone Interval: x10 msec of non-silence

Cycles Needed: cycles

Tolerance: +- x10msec

General Tone Detection

Figure 5-18: Telephony Settings: Hang-Up Detection Window

Types of Hang-Up Detection

Loop Current Supervision -- Loop Current disconnects are always activated by default. If available on your telephone system, activate Loop Current Supervision.

When a drop in loop current is detected on a line, *PathFinder* will disconnect. This is the preferred method for detecting hang-ups and is the most reliable.

Tone or Silence Disconnect -- Some telephone systems provide a continuous tone or silence to tell the voice processing system the call should be disconnected.

The tone or silence disconnects are not as reliable as Loop Current disconnects and may cause a line to remain connected longer than necessary or result in false hang-ups and callers being disconnected.

Re-Order Tone -- Still other telephone systems send Re-Order tone to the voice processing system for disconnect.

Re-Order Tone disconnect is a reliable method for disconnect, but require some configuration in the PathFinder voice processing system.

General Tone Detection -- Some telephone systems send a tone that is not continuous and is not a Re-Order Tone.

In this instance, you would use General Tone Hang-ups. This General Tone can be learned via PBXpert and will generate disconnects as reliably as Re-Order disconnect.

Determining Tone Type

To determine what type of disconnect your telephone system provides, please consult your telephone system manual. If the manual does not provide this information, follow the steps below to determine your hang-up type:

1. Have someone call an extension.
2. Answer the extension.
3. Have the caller hang-up.
4. Listen to the system.

If you hear...	Then your telephone system...
silence	provides Silence Hang-Ups.
a continuous tone	provides Tone Hang-Ups.
re-order tone	may provide Loop Current supervision or Re-Order Tone detection.

Refer to your telephone system documentation for more information.



You must know the type of hang-up detection your phone system supports before you alter any hang-up detection parameters. Refer to your phone system documentation if necessary.

Loop Current Drop

If the telephone system provides Loop Current Supervision, enable this option in the telephone system. **PathFinder** will automatically recognize a drop in loop current as disconnect with no configuration.

The `minlcoff` parameter in the Registry can be adjusted for **PathFinder** to reliably detect loop current disconnects.

Tone Interval

Specify a number between zero and ninety-nine that represents the detection interval. This interval defines the length of time, in seconds, for the tone that sounds before **PathFinder** disconnects or hangs up a call.

EXAMPLE: Entering 5 for the *Non-silence* interval instructs *PathFinder* to listen for a steady tone that is five seconds long and, upon detection, to treat the call as a disconnect.

- ❑ If the interval is set too short, any pause could be interpreted as a tone, signaling a false hang-up.
- ❑ If the interval is too long, *PathFinder* can be tied up longer than necessary.



The recommended interval for both silence and non-silence intervals is five to seven seconds.

Silence Interval

Specify a number between zero and ninety-nine that represents the detection interval.

The silence interval defines the length of time, in seconds, for the silence that elapses before *PathFinder* disconnects or hangs up a call. For example, entering 5 for the *Silence* interval instructs *PathFinder* to listen for a silence that is five seconds long and upon detection to treat the call as a disconnect.

- ❑ If the interval is set too short, any long noise (such as cellular phone static) could be interpreted as a tone, signaling a false hang-up.
- ❑ If the interval is too long, *PathFinder* can be tied up longer than necessary.



The recommended interval for both silence and non-silence intervals is five to seven seconds.

Re-Order Detection

Re-Order Detection should be used if there is a cadence of silence and non-silence after a disconnect. Your telephone system documentation should provide the exact cadence of silence and non-silence (tone). If not, use PBXpert (refer to [“PBXpert” on page 2-42](#)) to learn the Re-Order tone.



To use this function, you must refer to your phone system documentation regarding tone frequency for hang-up.

General Tone Detection

Click on **Set Tone Templates** if you need to do any the following tasks:

- ☐ Delete a tone template: Highlight the template and click on **Delete**. No further action is necessary.
- ☐ Modify a tone template: Highlight the desired tone template, then click on **Edit**.
- ☐ Add a new tone template: Click on **Add**.

Add or Edit Tone Template

If you select to edit or add a template, the following window is displayed:

Figure 5-19: Add Tone Template Window



In order to determine what entries to make in the Add Tone Template window, use PBXpert to learn the disconnect tone.

For each tone template that you either edit or add, complete the fields in this window as follows:

Field	Description
Description	Type a description that can help you remember this tone template's purpose.
Tone ID	Enter a number from 101 to 120, following the previous tone template in numeric sequence.
Repeat Count	Should be set to 0 for continuous tones. For cadences, it should be the number of times that the pattern should cycle on/off.
Edge	Select Rise if this is a leading-edge tone; select Fall if this is a trailing edge tone. Typically, this value will be set to Rise .
Frequency 1 Hz+/-	Specify the first frequency of the tone (always included) in Hz. Specify the maximum deviation from the first frequency, in Hz.
Frequency 2 Hz+/-	Specify (in Hz) the second frequency if the tone is a dual tone; if the tone is a single tone, set this field to 0 . Specify the maximum deviation from the second frequency, in Hz. <i>NOTE -- Single tones have zero values for Frequency 2; dual tones have non-zero values.</i>
On Time	For cadences, enter the length of time (in 10ms units) tone is on . For continuous tones, enter 1/2 of debounce time (in 10ms units).
x 10 ms + / - for On Time	For cadences, enter the plus-or-minus deviation (in 10ms units) for on time. For continuous tones, enter 1/2 of debounce time (in 10ms units).

Field	Description
Off Time	For cadences, enter the length of time (in 10ms units) tone is off . For continuous tones, enter 0.
x 10 ms + / - for Off Time	<p>For cadences, enter the plus-or-minus deviation (in 10ms units) for off time. For continuous tones, enter 0.</p> <p><i>NOTES:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Continuous Tones have zero values for On Time and Off Time deviations. <input type="checkbox"/> To debounce leading edge continuous tones to prevent talk-off -- Set the On Time to 1/2 of the desired debounce time (in 10ms units) and the On Time deviation to -1/2 of the desired debounce time (in 10ms units). <input type="checkbox"/> Cadence Tones have non-zero values for On Time and Off Time deviations.
Tone Events	Check On to activate this tone template. Check Off if you need to disable this tone.
Options	<p>Unless otherwise instructed by Vodavi Technical Support, ensure that the Set Wait check box is cleared and that the Set Hang-Up check box is selected.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Set Wait determines whether a tone occurrence should generate events to wait () function. <input type="checkbox"/> Set Hang-up determines whether a tone occurrence should set hang-up (H7) and terminate Dialogic[®] operations.

Transfer Settings

Transfer Settings function provides control over call transfer activities.

Figure 5-20: Telephony Settings: Transfer Settings Window



When addressing the following fields, refer to your phone system manual as needed for the appropriate codes.

Number Length to Edit

Number Length to Edit shows the defined extension length you are editing. If you are using multiple extension lengths and need to view or change a different length, select it here. For example, if there are subscribers on the voice processing system with four and five digit extension lengths, you will have to modify the transfer settings for both **4** and **5**.

Transfer Fields



Transfer Prefix and Postfix settings can be controlled by the Class of Service. Refer to [“Transfer Strings” on page 5-81](#) for more information.

A typical transfer prefix is &. Complete the *Transfer* fields as follows:

Prefix -- Enter the flash-hook and/or tone dialing sequence that starts a call transfer. On most phone systems this feature is accomplished through a flash-hook and pause. If this is the case, enter &, (the comma provides the pause) in this field. *PathFinder* will automatically dial the extension number after dialing the prefix.

Postfix -- Enter the flash-hook and/or tone dialing sequence needed to end a call transfer (usually, this entry is not required).

Connect -- Enter anything required to connect a transferred call. Most phone systems do not require anything for this feature.

Recall Caller On Fields

These settings are only used in Supervised Transfers. A typical transfer prefix is &. If you are not using Supervised Transfers, leave these settings as they are.

Complete the *Recall Caller On* fields as follows:

Busy -- Enter the value needed to abort a transfer to a busy number and reconnect the caller to *PathFinder*. The typical value for this field is &, which is a flash hook. Sometimes a tone dialing sequence is needed in addition; for example, &, * 1.

No Answer -- Enter the value needed to abort a transfer to an unanswered number and reconnect the called party. On most phone systems, this value is the same as for Recall a Caller on Busy.

Reject -- This feature allows *PathFinder* to retrieve a call if the extension to which the call was transferred rejects it. This feature is used during Auto-Attendant call screening. It can be viewed as **Abort a Connected Transfer**. Typically, the dialing sequence is the same as for *Recall Caller on Busy* field.

Blind Transfer Delay

For *Blind Transfer Delay*, enter the number of seconds the system should pause after dialing the transfer sequence and extension number but before going on hook. The maximum value for this field is 999.

Flash-Hook Length

For *Flash-hook Length*, the default length of 1/2 second is appropriate for most phone systems. If DTMF tones are audible when attempting a transfer, this setting needs to be increased. If the telephone system hangs up when attempting a transfer, this setting needs to be shorter. Refer to your phone system documentation for additional information.

Selecting **Use Perfect Call** indicates that *PathFinder* should use the Perfect Call settings. Refer to [“Perfect Call” on page 5-33](#) for more details.

Rings

The Rings function determines how *PathFinder* processes ring detection on incoming calls.

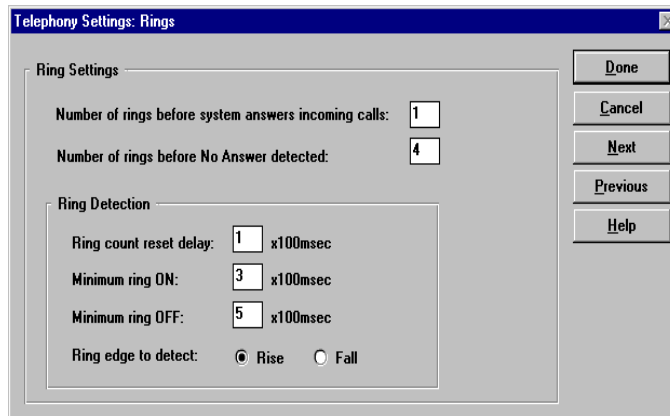


Figure 5-21: Telephony Settings: Rings Window

Number of Rings Before System Answers

The **Number of rings before system answers** parameter determines the number of times *PathFinder* allows the phone to ring before answering an incoming call. One ring is a typical setting.

Number of Rings Before No Answer Detected

The **Number of rings before No Answer detected** parameter is used during supervised dialing actions (such as a call transfer) to determine how many rings must elapse before *PathFinder* terminates the activity. If the line is not connected after the number of rings specified, the action is aborted. Four rings is usually adequate.

Ring Detection

Ring Count Reset Delay -- This setting is used in particular telephone system integrations and typically should not be modified.

Minimum Ring ON -- This setting describes the ring cadence from the phone system. **Minimum ring ON** is the time where there is a ring from the phone system.

Minimum Ring OFF -- This setting describes the ring cadence from the phone system. **Minimum ring OFF** is the time where there is no ring from the phone system.

Ring Edge to Detect -- If **Ring edge to detect** is set to **Rise**, *PathFinder* detects inbound rings more quickly. Set this to **Fall** to slow it down if you occasionally get false rings.

Perfect Call

Perfect Call specifies the exact tones that make up the different telephony signals (dial tone, busy signal, ringing, do not disturb, and the like). Typically, these values are pre-programmed when you select your telephone system. If these values are not defined, you can use PBXpert to learn the tones. Refer to *“PBXpert” on page 2-42* for more information.

Telephony Settings: Perfect Call

Dial Tone	Freq 1 / Dev	Freq 2 / Dev	On / Dev	Off / Dev	Count
Local:	419 25		200 -200		
Long:					
Extra					
Busy 1:	474 28	613 36	45 5	45 5	4
Busy 2:					
Ring Back 1:	461 27		95 7	287 23	
Ring Back 2:					
FAX 1:					
FAX 2:					

All frequencies in Hz.

All durations in msec.

Done

Cancel

Next

Previous

Help

Select Done to save these settings.

Figure 5-22: Telephony Settings: Perfect Call Window

Other MAINT Settings

The MAINT application allows you to configure *PathFinder*. This section describes several miscellaneous configuration functions available in the *Configuration* menu in MAINT, including PBX integrations, optional modules, INI files, engine control, and the Registry.

PBX Integrations

This window is accessed by selecting **PBX Integrations** from the *Configuration* menu.

Also, after you have started *PathFinder* for the first time and have gone through the *First Time Questions* window, you are prompted to configure PBX integrations.

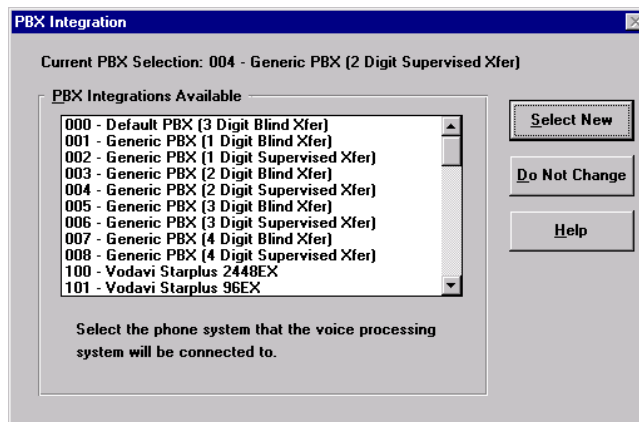


Figure 5-23: PBX Integration Window



The above window displays the current PBX selection.

After you have selected a PBX from the list, the following window, which allows you to select what options to install, is displayed.

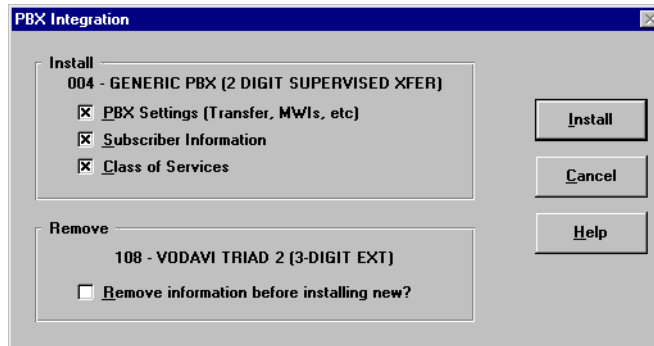


Figure 5-24: PBX Integration (next) Window



If the Remove information before installing new? option is selected, then the previous PBX's options are removed.

Optional Modules

Optional modules are purchased separately from the standard *PathFinder* software package. Some of these optional modules can be configured here in the *Configuration* menu of MAINT. If you have purchased Point to Point or Fax Options, these menu choices are available for modification in the *Configuration* menu.

Refer to the [Appendix C, "Optional Modules,"](#) for more information on how to configure individual optional modules.

Registry

The *PathFinder* Registry is a database of parameters. Changes, settings, and parameters set through *Configuration* menu options are stored in the Registry.

To display the Registry, select **Registry** from the *Configuration* menu. *PathFinder* displays a window with all the current Registry parameter entries. This provides a helpful overview of all *PathFinder* settings should troubleshooting be required.

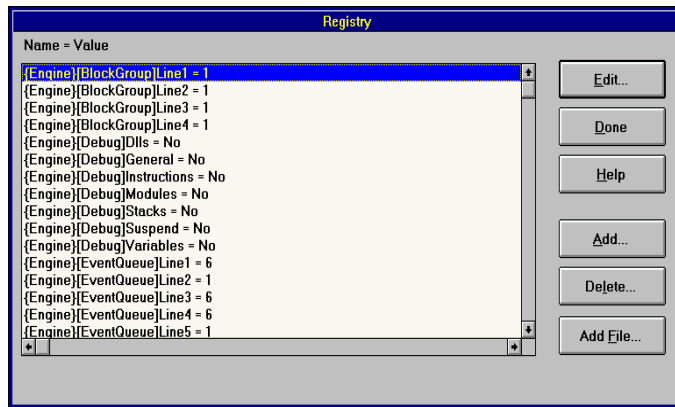


Figure 5-25: Registry Window

Registry Maintenance

Buttons in the *Registry* window provide you with the ability to modify various Registry parameters, both for hardware and software.



If you need to make changes directly to items in the Registry, you should contact Vodavi Technical Support. These options, if used incorrectly, can cause serious problems.

Delete Registry Item

The **Delete** function of the *Registry* window provides you with the ability to select a specific item from the Registry list and delete it. After you select the item, click on **Delete**. *PathFinder* prompts you to confirm that you want to delete the item.

Add or Edit Registry Item

The Edit function of the *Registry* window provides you with the ability to select a specific item from the Registry list and edit it.

Occasionally, changes necessitate adding items to the Registry. This may occur if new applications are added through new software modules, or if existing modules are changed or upgraded.

EDIT -- After you select the item, click on **Edit**. *PathFinder* displays the *Edit Registry Item* window, where the changes can be made.

Refer to [“Registry Item Fields” on page 5-39](#) for more information on making these changes.

The screenshot shows the 'Edit Registry Item' dialog box. It has a title bar with the text 'Edit Registry Item'. Inside, there are two text input fields: 'Name' with the value 'LineRestartDelay' and 'Value' with the value '5'. To the right of these fields are three buttons: 'OK', 'Cancel', and 'Help'. Below these fields is a section with four more input fields: 'Default' (empty), 'Description' (containing 'Engine parameter.'), 'Type' (with two sub-sections: one with 'Defaults' and 'INI Parameter' checkboxes, both checked; and another with 'Reloadable' and 'Write Empty' checkboxes, both unchecked). At the bottom is an 'INI File Settings' section with two input fields: 'INI File' (containing '{Engine}.INI') and 'Section' (containing 'General').

Figure 5-26: Edit Registry Item Window

ADD -- To add a Registry item, click on **Add** in the *Registry* window. *PathFinder* displays the *Add Registry Item* window, where the changes can be made.

Refer to *"Registry Item Fields" on page 5-39* for more information on making these changes.



*Add Registry items only under the direction of Vodavi technical support staff or your *PathFinder* dealer.*

Add Registry Item

Name:

Value:

OK

Cancel

Help

Default:

Description:

Type: ☐ Defaults ☐ Reloadable
☐ INI Parameter ☐ Write Empty

INI File Settings

INI File: .INI

Section: []

Figure 5-27: Add Registry Item Window

Registry Item Fields

The following fields are used to add or edit Registry items:

Field	Description
Name	The Registry item to add or modify. This entry is case sensitive.
Value	The current value for the setting.
Default	Specifies a default value for this setting.
Description	A general description of the setting.
Type	Select the options that apply to this Registry item. <ul style="list-style-type: none"><input type="checkbox"/> Defaults -- if you assigned a value in the <i>Default</i> field<input type="checkbox"/> Reloadable -- to indicate that <i>PathFinder</i> should be reloaded when this parameter changes<input type="checkbox"/> INI Parameter -- if the value is to be written to an INI file<input type="checkbox"/> Write Empty -- if the value is to be written to even if empty
INI File Settings	Select the options that apply: <ul style="list-style-type: none"><input type="checkbox"/> INI File -- If INI Parameter was checked above, use this field to enter the name of the INI file to write to.<input type="checkbox"/> Section -- If writing to an INI file, specify the section in which to write.

User Settings

The MAINT application allows you to configure *PathFinder*. This section describes the users (e.g., subscribers) functions available through the *Edit* menu in MAINT.

Users (or “subscribers”) are people who have a mailbox and an extension on *PathFinder*. Subscribers can leave, forward and retrieve messages. They can have a voice mail greeting, and mailbox signature, and certain subscribers have access to administrator options.

All users or subscribers have both a mailbox and extension on *PathFinder*. Typically, the user/subscriber has an extension on the telephone system as well. If the user/subscriber has no physical extension on the telephone system, the voice mailbox can take messages for that subscriber at any time.

This section discusses how to create, modify and delete users/subscribers.



The terms “user” and “subscriber” are used interchangeably throughout this chapter and this manual.

Creating Users

The *PathFinder* **Create User** function is used to generate a single mailbox/extension, possibly for a new employee, or to create a template mailbox to set up a group of users/subscribers.

PathFinder cannot perform messaging functions until subscribers' mailboxes/ extensions have been defined and configured with the appropriate parameters. Subscribers may be set up individually or in groups, referred to as ranges. Any time you define a subscriber, you create a mailbox and a corresponding extension.



*Any attempt to transfer a call to an invalid mailbox causes *PathFinder* to play the error prompt “Mailbox Number XXX Does Not Exist.” Any attempt to transfer a call to an invalid extension causes *PathFinder* to play the error message “Extension number xxx does not exist.”*

Assigning Mailbox & Extension Numbers

In many cases, the mailboxes assigned to subscribers can match their extension numbers. If the mailbox number does not match the extension number, they should at least correspond in some way that helps the subscriber remember the mailbox number. For example, mailbox 1213 could be assigned for extension 213.

Template Users/Subscribers

When creating mailboxes and extensions, it is likely that you will have many users/subscribers with the same features. For example, many subscribers will have the same Class of Service, initial password and mailbox settings. Creating a template user is a convenient way to create identical mailboxes. A template user is a subscriber profile that is representative of the settings for most users (or most users in a given group) and is used as a model for creating other users.

Follow these steps to create a template user/subscriber:

1. Click on the **Users** icon in the toolbar (the leftmost icon).
Alternatively, you can also select from the menu bar Edit > Users > Show List. The following window displays:

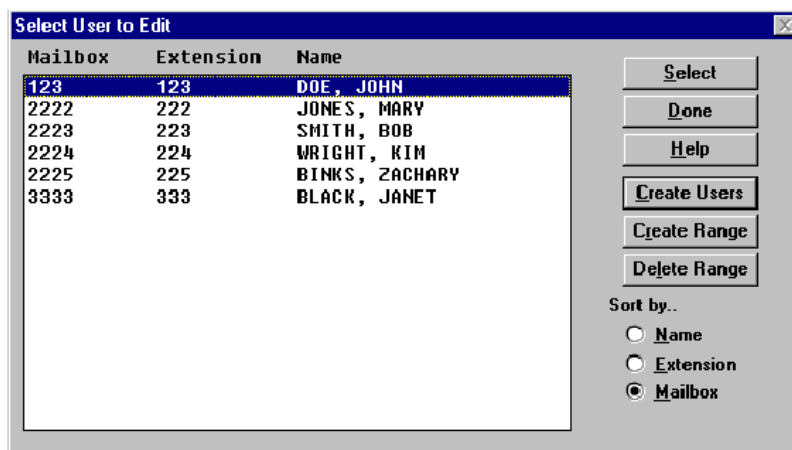
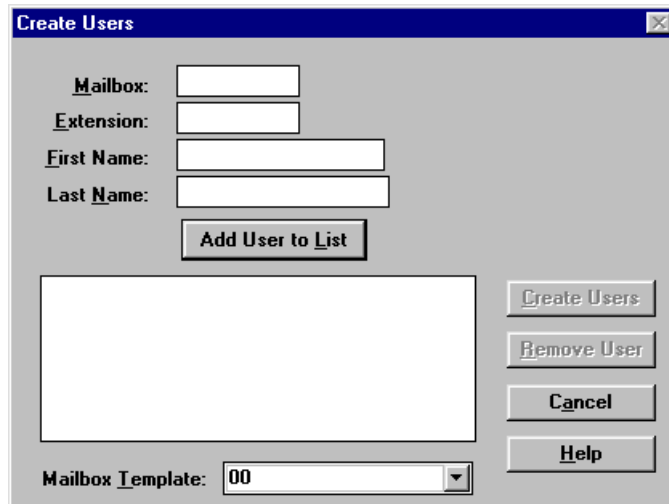


Figure 5-28: Select User to Edit Window

2. Click on the **Create Users** button. The following window displays:



The screenshot shows a 'Create Users' dialog box. It features a title bar with the text 'Create Users' and a standard window control button (close). The main area contains four labeled text input fields: 'Mailbox:', 'Extension:', 'First Name:', and 'Last Name:'. Below the 'First Name' and 'Last Name' fields is a button labeled 'Add User to List'. To the right of the input fields, there is a vertical stack of four buttons: 'Create Users', 'Remove User', 'Cancel', and 'Help'. At the bottom left, there is a label 'Mailbox Template:' followed by a dropdown menu currently displaying '00'.

Figure 5-29: Create Users Window

3. Leave blank the *First Name* and *Last Name* fields in this template subscriber window.
4. In the *Mailbox* and *Extension* fields, enter a dummy mailbox and extension number outside the allowed range. For example, if the allowed extension range for your telephone system is 100 to 200, you could enter 500 or 999 as the dummy extension in the *Extension* field. When you create individual subscribers, you will overwrite these dummy values and assign distinct extension and mailbox numbers to each subscriber whose profile is based on this template.
5. Click on **Add User to List**.
6. Refer to [“Editing User Setups” on page 5-46](#) to edit this template subscriber’s parameters. The parameters you define will apply to all mailboxes that use this mailbox as a template.
7. Click on **Create Users** to return to the *Select User to Edit* window.

You are now ready to create additional mailboxes. Each new mailbox that you create using this mailbox as a template will have the same settings as your template mailbox.

Single Mailbox

To set up a single subscriber, perform the following steps.



You may also use the Edit option from the main menu to quickly edit, add, or delete subscribers. This enables you to bring up subscribers using their mailbox number and/or extension, instead of scrolling through the entire list of subscribers.

1. Click on the **Users** icon in the toolbar (the leftmost icon).
Alternatively, you can also select from the menu bar Edit > Users > Show List. The following window displays:

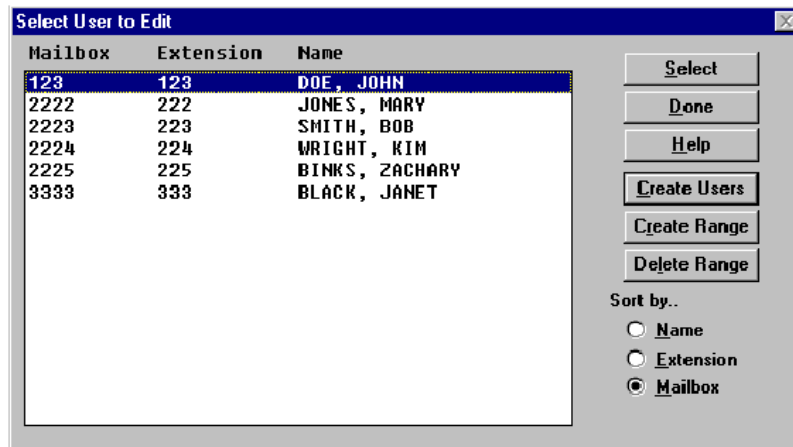


Figure 5-30: Select User to Edit Window

2. Click on the **Create Users** button. The following window displays:

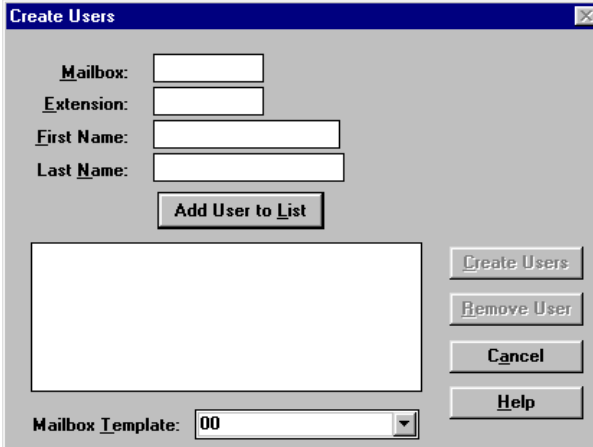
The image shows a Windows-style dialog box titled "Create Users". It has a blue title bar with a close button. The main area is light gray. On the left, there are four labels with corresponding text input fields: "Mailbox:", "Extension:", "First Name:", and "Last Name:". Below these is a button labeled "Add User to List". In the center is a large, empty rectangular box. On the right side, there are four buttons stacked vertically: "Create Users", "Remove User", "Cancel", and "Help". At the bottom left, there is a label "Mailbox Template:" followed by a dropdown menu showing "00".

Figure 5-31: Create Users Window

3. Enter the following information about this subscriber:
Mailbox -- Enter the subscriber's mailbox number. This can be the same as the subscriber's extension, or it can be different as needed.
Extension -- Enter the extension to which this mailbox is linked.
First Name -- Enter the first name of the subscriber. Information in this field will be use to create the company directory.
Last Name -- Enter the last name of the subscriber. Information in this field will be use to create the company directory.
Mailbox Template -- If you have already created a subscriber whose mailbox definition can serve as a template for this subscriber, select that mailbox number in the *Mailbox Template* drop-down list.
4. Once all the information is entered, click on **Add User to List**.
5. Repeat this process for any additional subscribers you need to establish.
6. When you have identified the last subscriber you need to create, click on **Create Users** to return to the *Select User to Edit* window.
7. To further define mailbox parameters for a subscriber, refer to ["Editing User Setups" on page 5-46](#).

Multiple Mailboxes

The **Create Range** option provides you with the ability to set up multiple subscribers without the need to set them up individually. To create a range of subscribers, perform the following steps.

If you created a mailbox for use as a template, all settings and parameters from the template are copied to the range. A template mailbox is highly recommended when creating a range of mailboxes. Refer to [“Template Users/Subscribers” on page 5-41](#) for details.

1. Click on the Users icon in the toolbar (the leftmost icon). Alternatively, select from the menu bar Edit > Users > Edit User.
2. In the *Select User to Edit* window, click on **Create Range**. The following window is displayed:

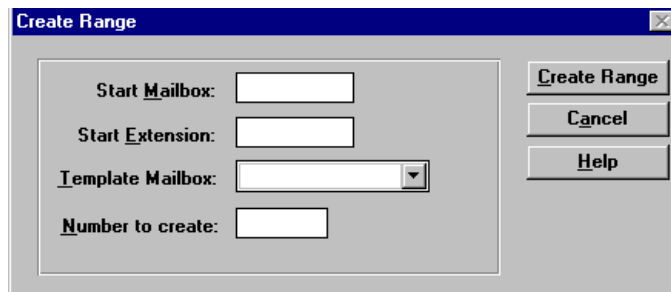


Figure 5-32: Create Range Window

3. In the *Start Mailbox* field, enter the first mailbox number to be used in the mailbox range.

4. In the *Start Extension* field, enter the a corresponding extension number to be used for the first extension in the mailbox range.



When creating a range, numbers are sequentially assigned to both mailboxes and extensions. Therefore, the Start Mailbox and Start Extension fields should correlate somehow, as in this example:

- ☐ *Start Mailbox: 100*
- ☐ *Start Extension: 100*
- or*
- ☐ *Start Mailbox: 2100*
- ☐ *Start Extension: 100*

5. If you have created a mailbox to be used as a template for default settings in all mailboxes for this range, select it from the drop-down list. If you do not want to use a template, delete any entry that appears in the *Template* field.
6. For *Number to create*, enter the number of mailboxes you want to create, beginning with the starting mailbox and extension.
7. Click on **Create Range**. This returns you to the *Select User to Edit* window, where you can continue defining mailbox and extension parameters (refer to ["Editing User Setups" on page 5-46](#)).

Editing User Setups

The **Edit Mailbox** function is used to make changes to the settings and parameters of existing mailboxes. Note that, to edit mailbox parameters, a mailbox must have previously been created with the **Create** or **Create Range** function, as described earlier.

General User Settings

To edit general user/subscriber settings, perform the following steps.

1. If the *Select User to Edit* window is not already displayed, click on the **Users** icon in the toolbar (the leftmost icon). Alternately, select from the menu bar Edit > Users > Show List.

2. Highlight the subscriber to edit, and click on **Select**. The following window displays:

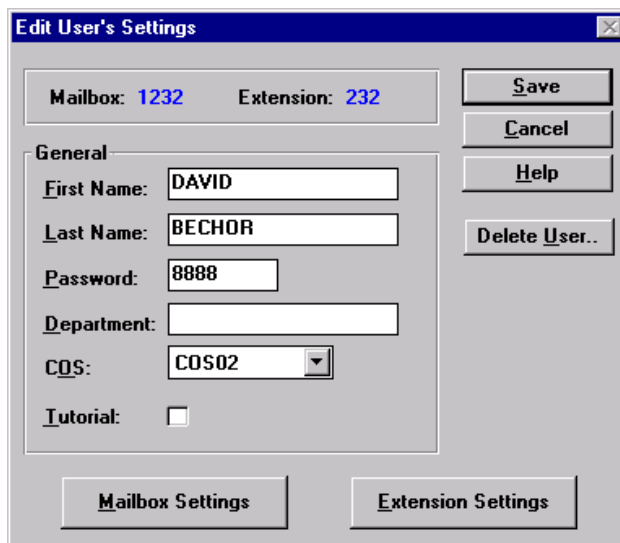


Figure 5-33: Edit User's Settings Window

3. Complete the fields for this subscriber as follows:
 - Extension -- The extension to associate with this mailbox. This option allows you to change the extension associated with a mailbox without affecting the mailbox message, signature, or greeting.
 - First Name and Last Name -- Change as needed. Information in these fields is used to create the company directory.
 - Password -- Enter the number to be entered by the mailbox subscriber to retrieve mailbox messages. Initially, it should be set to some easy to remember code, like **1111**; the subscriber can change the password later depending on their COS settings.
 - Department -- Enter the department or area in which the employee works (this field is used to provide additional information in reports).

Class of Service (COS) -- From the drop-down list, select the COS to associate with this mailbox. Refer to [“Templates” on page 5-57](#) for specific information on COS options.



*If the Class of Service field is left blank, **PathFinder** defaults to the last COS used. In a configuration that uses multiple COSs, errors could arise. You should assign a COS to each extension to avoid possible problems.*

Tutorial -- Determines if the tutorial is played when the mailbox owner accesses **PathFinder**.

- ☐ If this option is disabled, the subscriber's COS does not allow for a first-time tutorial.
 - ☐ If the option is enabled and not checked, the subscriber has probably already heard the tutorial.
 - ☐ If the option is enabled and is checked, on the next call into **PathFinder**, the mailbox owner will access the tutorial.
4. If needed, click on **Mailbox Settings** and/or **Extension Settings**, and configure these windows as needed. Refer to [“Mailbox Settings” on page 5-49](#) and [“Extension Settings” on page 5-51](#) for more details on configuring these windows.
 5. Click on **Save** to add this definition to **PathFinder**.

Mailbox Settings

To adjust Mailbox Settings, click on **Mailbox Settings** from the *Edit User's Settings* window (refer to *"General User Settings" on page 5-46*). The following window is displayed:

The screenshot shows the 'Mailbox User Settings' dialog box. It is divided into three main sections: 'General', 'Mailbox Action', and 'Notification'. In the 'General' section, the 'Name' field is filled with 'JAY JONES', 'Mailbox' is '1000', and 'Extension' is '1000'. The 'Time Control' dropdown is set to 'NONE'. The 'Operator' and 'Cascade to' fields are empty dropdown menus. In the 'Mailbox Action' section, the 'Play Greeting' checkbox is checked, and the 'Take a message' dropdown is visible. In the 'Notification' section, the 'No notification' dropdown is visible. On the right side of the dialog, there are three buttons: 'OK', 'Cancel', and 'Help'.

Figure 5-34: Mailbox User's Settings Window

Complete the fields in this window using the following guidelines.

Time Control

Unless there is a special circumstance, leave this value as **None**. Time controls provide time-oriented call routing instructions (for example, route unanswered calls to an extension during the day and a mailbox at night). Refer to *Time Control Settings* in this chapter for additional information.

Operator

Enter a personal operator for the mailbox. If a caller presses 0 (for the operator) while in the mailbox, the call is transferred to an alternate extension. This setting overrides the system-wide operator setting (refer to *"Operators" on page 5-9*). This setting can be used to transfer calls to a personal attendant.

Cascade To

Message cascading is a feature that copies or moves messages left for the originating mailbox to another mailbox. In order to use message cascading, the originating mailbox's COS must be configured to allow this feature (refer to ["Message Cascading" on page 5-75](#)). This feature does not work until COS settings have been properly configured. Typical uses include archiving and notification of no answer to messages left in a mailbox (e.g., for customer service).

Mailbox Action

Click on **Play Greeting** if **PathFinder** is to play the greeting recorded for this mailbox when **PathFinder** answers the phone. Use the drop-down list to select from various actions that the mailbox performs when a message is left. These actions function as follows:

Field	Description
Take a Message	Records messages in the mailbox for later retrieval.
Forward to another Mailbox	Sends the caller to an alternate mailbox where a message may be left. The mailbox to which the caller was forwarded dictates which Notification and MWI settings apply.
Forward to Extension	Sends the caller to an extension. The mailbox to which the caller was forwarded dictates which Extension settings apply.
Forward to Menu	Sends the call to a menu where further options may be provided to the caller. Refer to Menu Settings in this chapter for more information on menus.
Forward to Time Control	Causes PathFinder to execute the assigned time control and take the appropriate action. Refer to Time Control Settings in this chapter.
Forward to Module	Automatically runs another module when the mailbox is accessed. Special applications only.
Mailbox is Off	Disables the mailbox's ability to take messages. This option plays the "Mailbox is off" prompt to the caller.
Mailbox is Full	Plays a message to the mailbox owner stating the mailbox cannot record any new messages until old ones are deleted. This option plays the "Mailbox is full" prompt to the caller.

Notification

Notification refers to external numbers (e.g., pager, mobile), not Message Waiting Indicators. Refer to [“Notification Settings” on page 5-73](#).

Select the type of notification **PathFinder** is to use when a message has been left in the mailbox. Notification options include the following:

- ☐ **No notification:** Disables message notification completely.
- ☐ **Immediate notification:** Sends notification immediately upon receiving messages.
- ☐ **Timed notification:** Sets a time to notify mailbox owner of new messages.
- ☐ **Urgent notification:** Instructs **PathFinder** to send notification, but only when new messages are marked **Urgent**.
- ☐ **Phone number:** Enter the phone number to dial for notification. Do not type dialing prefixes for long-distance numbers, outside line access, and the like (e.g., 9 , and/or 1).



*If you have an integrated system, do not set notification to call an internal extension, because the notification message could end up being left in the extension owner's mailbox. This would cause **PathFinder** to send another notification message, creating a loop.*

- ☐ **Pager notification:** When choosing any method of notification, you see a *Pager Notification* checkbox. Select this checkbox if the notification number you have indicated is a pager.

Extension Settings

Extension Settings allow you to edit the actions for a mailbox number as well as change transfer options. To edit Extension Settings, click on

Extension Settings from the *Edit User's Settings* window (refer to [“General User Settings” on page 5-46](#)). The following window displays:

Figure 5-35: Edit User's Extension Settings Window

Time Control

Unless there is a special circumstance, leave this field blank. Time control settings provide time-oriented call routing instructions (e.g., routing unanswered calls to an extension during the day and a mailbox at night). Refer to [“Time Control Settings” on page 5-93](#) for more information.

Actions

PathFinder provides three *Action* fields that determine how *PathFinder* process incoming calls. *PathFinder* refers to the three options in a cascading order. That is, the first field has precedence over the second, and the second field has precedence over the third.

The following illustrates an example scenario of **Action** options:

1. An incoming call is answered by *PathFinder*
2. *PathFinder* checks the first Action option for instructions on how to process the call. The supervised transfer has been selected.

3. *PathFinder* is instructed to perform a supervised transfer to the extension.
4. The extension is busy. *PathFinder* pulls the call back from the extension.
5. *PathFinder* checks the second Action option for instructions on what to do next. The option **Forward to Voice Mail** has been selected.
6. *PathFinder* sends the call to the appropriate voice mailbox.

The fields associated with each Action field change to reflect the Action selection.

For example, if **Forward to Extension** is selected in the *Action* field, the field to the right of it changes to **Extension to forward to**. If the *Action* selection is set to **Forward to Menu**, the field changes to **Menu to forward to** and is used to enter the name of the menu to which calls are sent.

The following **Action** options are available:

Blind Transfer -- An unsupervised transfer to the requested extension. This option is commonly used to transfer to a hunt group or in an environment where you are sure the call can be answered, as in integrated systems. Only one transfer type (Blind or Supervised) can be selected at a time.

Supervised Transfer -- Allows *PathFinder* to monitor call transfers to determine whether the called extension is busy or is not being answered. If the call is not answered, *PathFinder* refers to the subsequent Action entries for instructions on processing the call. Only one transfer type (Supervised or Blind) can be selected at a time.

- ❑ **Screen Caller** -- When a person dials an extension through the Auto-Attendant, the Call Screening feature prompts the caller to state his name. *PathFinder* lets the called party hear this name before the call is actually transferred. The called party can either accept or reject the call. This option works only with Supervised Transfer.
- ❑ **Holding Allowed** -- Gives the caller the opportunity to hold on the line in the event the called party is busy. This option works only with Supervised Transfer. The caller hears the following prompt: "I'm sorry, <extension name> is busy. If you would like to hold press 1. To try another extension or leave a message for this extension, press 2."

Forward to Extension -- Forwards calls to the specific extension entered in the Extension field.

Forward to Mailbox -- Forwards calls to the specific mailbox entered in the Mailbox field. Usually this is the called extension's personal mailbox.

Forward to Menu -- Forwards calls to the specific menu entered in the Menu field. Refer to *"Menu Settings" on page 5-83*.

Forward to Module -- Forwards callers to a custom script module (e.g., pharmacy refill, debit card)

Forward to Time Control -- Runs the designated time control file and takes the actions designated for the current time. Refer to *"Time Control Settings" on page 5-93*.

After selecting the desired **Action 1**, complete any fields to the right of the Action 1 field. When **Supervised Transfer** is selected in the Action 1 field, the Action 2 field becomes active and can be edited.

When Action 1 is set at **Supervised Transfer**, and the transfer results in a busy or no answer situation, the setting in the Action 2 field specifies what should happen next. You may conditionally invoke **Action 2** when the following conditions existed after the **Action 1** transfer:

- ☐ **Do always:** The action always takes place. Only available for Action 2 and Action 3.
- ☐ **Only on busy:** Instructs *PathFinder* to use this option if the transfer results in a busy signal. This option must be used in conjunction with the **Only on no answer** or **Do always** options. Only available for Action 2 and Action 3.
- ☐ **Only on no answer:** Instructs *PathFinder* to use this option if the transferred call is not answered. Only available for Action 2 and Action 3.

You may also conditionally invoke **Action 3** when the above conditions existed for the **Action 2** transfer.

User-Edited Features

In addition to the options described in this section, individual users/subscribers can edit certain mailbox features over the telephone. The options that subscribers can modify are defined in the Class of Service. Refer to *"Class of Service Settings" on page 5-56* for more information.

Subscribers can refer to the *PathFinder User's Manual* for more information about editing available features.

Deleting Users

Users/Subscribers may be deleted individually or in ranges. After a subscriber has been deleted, the corresponding mailbox/extension parameters and settings are erased. The number can be reused only after it has been recreated with the **Create User** function.

Any voice files associated with the mailbox are automatically deleted when the mailbox is deleted.

Deleting a Single User

The **Delete User** function is used to delete an individual user/subscriber from *PathFinder*. This might be necessary for people who have left the company or who have been transferred to another location.

To delete a mailbox, perform the following steps:

1. Select from the menu bar Edit > Users > Delete User.
2. Enter the mailbox number or extension number that you would like to delete.
3. Click **Delete User**.
4. Confirm the deletion.

Alternatively, you can delete a user by performing the following steps.

1. Click on the **Users** icon in the toolbar (the leftmost icon) to display the *Select User to Edit* window.
2. Scroll through the list to highlight the subscriber to delete.
3. Click on **Select**.
4. When the subscriber's settings display, click on **Delete User**.

Deleting a Range of Mailboxes

Delete Range is used to delete multiple mailboxes from *PathFinder*. Use this function to delete a large contiguous block of mailboxes. All settings and parameters are deleted as are the individual mailbox numbers. To delete a range of mailboxes:

1. Click on the **Users** icon in the toolbar (the leftmost icon) to display the *Select User to Edit* window.
2. Click on **Delete Range**.
3. Select the *Start* and *End Mailbox* or *Extension*, depending on the delete criteria, from the appropriate pull-down menus.
4. Click on **Delete User**.

Class of Service Settings

The MAINT application allows you to configure *PathFinder*. This section describes the Class of Service functions available through the *Edit* menu in MAINT.

Definition

To understand Class of Service (COS), think of an airplane. Some passengers fly first class, others fly business class, and some fly economy class, each with different amenities and services. *PathFinder* can do the same for subscribers, defining a virtually unlimited number of different classes of service.

Each subscriber (or mailbox and extension pair) is associated with a COS that defines its attributes. Grouping mailboxes and extensions into classes of service lets you change options for all the mailboxes and extensions in the same class simultaneously, simply by editing the COS record.

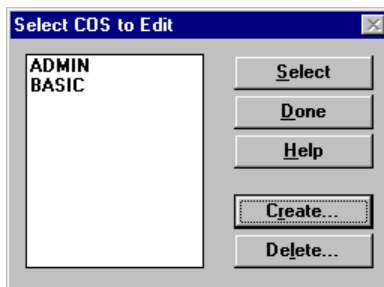
This section instructs you how to create, edit, and delete a COS. Instructions are also provided for creating a COS *template*, which can come in handy if you are creating a number of COSs that are similar in definition.

Templates

If you are creating several classes of service, you probably have many parameters that are the same for each. Using a template class of service is a convenient way to create identical classes of service, each having the same settings. You can then select the class of service when creating subsequent classes of service that should share these settings.

To create a template class of service:

1. Click on the **COS** icon (the second button on the *PathFinder* MAINT tool bar). The following window displays:



2. *Select COS to Edit* Window
3. Click on **Create** in the *Select COS to Edit* window.
4. Enter a name for the COS template, using any combination of alphanumeric characters. Choose a name that describes the group of users in this COS.
5. Click on **Create** to return to the *Select COS to Edit* window.

6. Highlight the COS you created, and click on **Select**. The following window displays, from which you can begin defining parameters for the COS template.

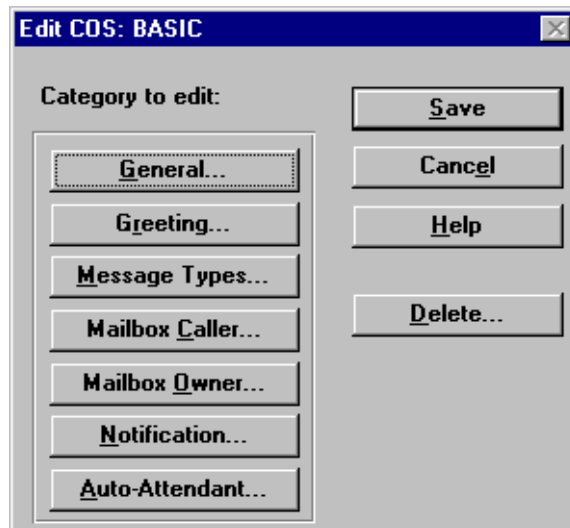


Figure 5-36: Edit COS Window (for the COS named General)

7. Edit the COS parameters to meet your needs as a template. There are seven edit categories, listed in the left side of this window. Once you have selected a category, you can reach another by clicking on the page controls that display at the bottom of the window. Refer to the following topics for more information on each category:
 - ❑ ["General Settings" on page 5-59](#)
 - ❑ ["Greeting Settings" on page 5-61](#)
 - ❑ ["Message Types Settings" on page 5-63](#)
 - ❑ ["Mailbox Caller Settings" on page 5-66](#)
 - ❑ ["Mailbox Owner Settings" on page 5-68](#)
 - ❑ ["Notification Settings" on page 5-73](#)
 - ❑ ["Auto-Attendant Settings" on page 5-77](#)

General Settings

Click on **General** in the *Edit COS* window to begin defining general options for the COS. The following window is displayed:

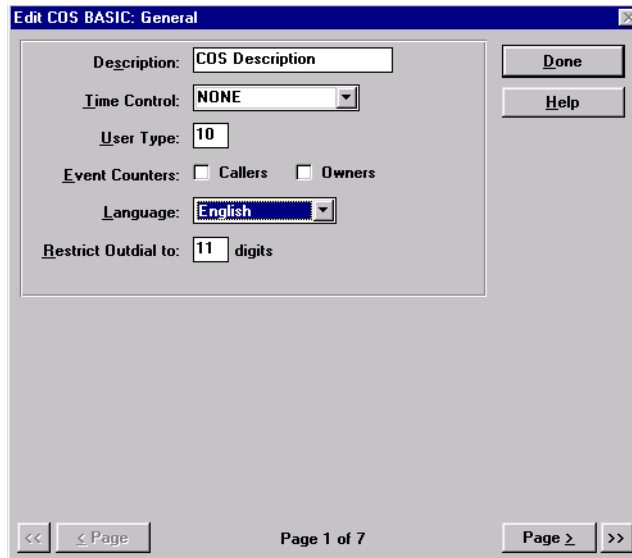


Figure 5-37: Edit COS General Settings Window

Description

Enter a brief description of the COS (twenty characters maximum), to help identify it in other operations.

Time Control

Calls are often processed differently in the evening, during the weekend, or on holidays than they are during regular business hours. The time control function lets you define a set of alternative actions that *PathFinder* performs for a given time setting. Time controls are created by selecting **Time Control** from the *Edit* menu. If you intend to use Time controls, refer to [“Time Control Settings” on page 5-93](#). Otherwise, set to **None**.

User Type

User Type designations were used in early versions of *PathFinder* to grant or limit user options. Set User Type to 99 only when granting system administrator access. For all other subscribers, this field should be set to 1.

Event Counters

Event Counters provide an overview of how *PathFinder* is used.

- ☐ Select the **Callers** check box if you want to maintain a count of mailbox/extension access by callers (non-owners).
- ☐ Select the **Owners** check box if you want to maintain a count of mailbox/extension maintenance accesses by the mailbox owner.

Language

Mailbox and extension prompts can be played in an alternate language. This parameter defines what language prompts will be used for each subscriber. For example, when an owner accesses their mailbox, a prompt tells the subscriber how many messages are in the mailbox. This parameter defines the language for such prompts.

Languages other than English are optional modules and must be purchased separately.

Restrict OutDial to

You can use this field to disable long distance dialing from the extension or from mailbox notification by entering the number of digits required for local calls (typically 7 or 10). This setting determines how many digits *PathFinder* can outdial for notification or from an extension.

Greeting Settings

Click on the **Greeting** button in the COS Edit window to begin defining greeting options for the COS. The following window is displayed:

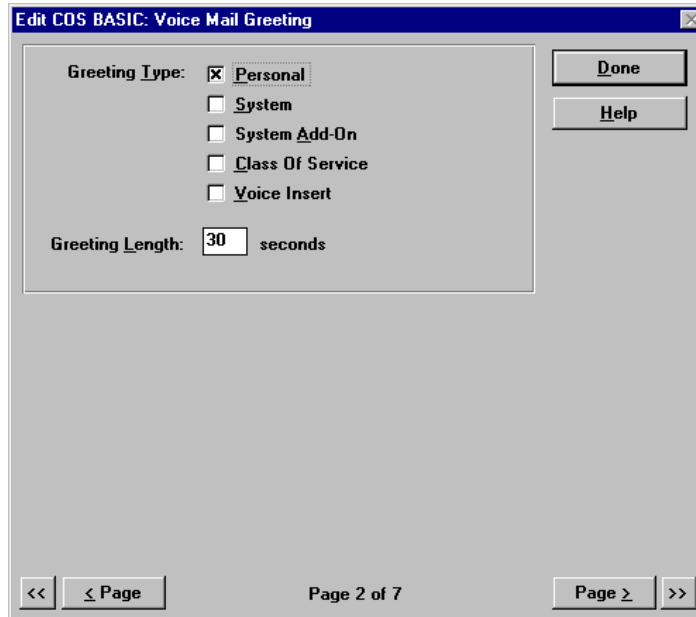


Figure 5-38 shows the "Edit COS BASIC: Voice Mail Greeting" window. The window contains the following elements:

- Greeting Type:** A group of radio buttons with the following options:
 - ☒ **P**ersonal
 - ☐ **S**ystem
 - ☐ **S**ystem **A**dd-On
 - ☐ **C**lass Of Service
 - ☐ **V**oice Insert
- Greeting Length:** A text box containing "30" followed by the label "seconds".
- Buttons:** "Done" and "Help" buttons are located on the right side.
- Page Navigation:** At the bottom, there are buttons for "<<", "< Page", "Page 2 of 7", "Page >", and ">>".

Figure 5-38: Edit COS Voice Mail Greeting Settings Window

Greeting Type

Select from the following types of pre-recorded messages, called "prompts," to be used when greeting a caller.

Personal

The **Personal** greeting option plays a greeting recorded by the mailbox owner. If the owner does not record a personal greeting, the **System** (default) greeting is used.

System

The **System** greeting is a generic message used when no personal greeting has been recorded. If both the **Personal** and **System** greetings are activated, *PathFinder* plays the personal greeting when one has been recorded.

System Add-on

The **System Add-on** is a smaller version of the **System** (default) greeting that follows a personal greeting. This greeting plays, "Begin recording at the tone. To stop recording, press any key . . ." and so on, whereas the regular **System** greeting plays, "The person you have tried to reach is unavailable. Begin recording . . ." and so on.

Class of Service

The **Class of Service** greeting plays a single greeting for all mailboxes that share the same COS. This is done to conserve disk space by eliminating the need for each mailbox to have its own greeting prompt.

For example, Balagunda Corporation has a COS called **SUPRT** for all technical support staff. The COS greeting file SUPRT.GRT might sound like this: "The technical support representative you are trying to reach at Balagunda Corporation is not available. Please leave a message at the tone."

Only one COS greeting can be recorded for each COS. Its file is stored in the \HELLONT\VOX directory. By default, the greeting file is called <COS Name> . GRT, where <COS Name> is the name given to the COS and . GRT is the COS greeting identifier file extension.

Voice Insert

A **Voice Insert** greeting plays a COS prefix prompt followed by a name prompt, which in turn is followed by COS postfix prompt. This is often done to personalize a COS greeting while limiting the amount of disk space used. For example, Balagunda Corp. set up a COS for all sales people called SALES. The COS prefix file SALES.VI1, name prompt, and postfix file SALES.VI2, might sound like this: "Thank you for calling the Balagunda Corp. sales department. <Subscriber> is not available. Please leave a message after the tone."

Only one COS prefix and postfix prompt can be recorded for any specific COS. These files are stored in the \HELLONT\VOX sub directory. By default, the prefix file is called <COS Name> .VI1, where <COS Name> is the eight-character name given to the COS and .VI1 is the identifier for the first portion of the voice insert greeting. The suffix file is called <COS Name> .VI2, where <COS Name> is the eight-character name given to the COS and .VI2 is the identifier for the second portion of the voice insert greeting.

Greeting Length

Enter the maximum length, in seconds, for personal mailbox greetings created by users assigned to this COS. Maximum value for this field is 999.

Message Types Settings

Click on **Message Types** in the *Edit COS* window to begin defining message type options for the COS. The following window is displayed:

Edit COS BASIC: Voice Mail Message

	Allow	Default
Message Type:	<input checked="" type="checkbox"/> Voice	<input checked="" type="radio"/> Voice
	<input type="checkbox"/> Page	<input type="radio"/> Page
	<input type="checkbox"/> FAX	<input type="radio"/> FAX

Message Type Menu: ☐

Message Length: seconds

Message Count: messages

Message Retention: days

Record Key: ☐

Done

Help

<< < Page Page 3 of 7 Page > >>

Figure 5-39: Edit COS Voice Mail Message Settings Window

Message Type

PathFinder mailboxes can be used to store a variety of messages. Select the types of messages to be allowed in mailboxes for this COS.



A single mailbox can store any combination of message types.

If more than one type of message is selected, specify one as the default. This setting applies only to inbound messages, not to the notification type. The types of messages that are allowed are as follows:

Voice

Callers can record voice messages, and the mailbox owner can listen to recorded voice messages.

Fax

A caller can leave a fax directly in a subscriber's mailbox. In order to retrieve a fax message, a subscriber must send it to a fax machine for printing. *PathFinder* must have fax ports in order to receive fax messages.

Page

A caller can enter DTMF digits. The mailbox owner can listen to the DTMF digits converted to regular speech, or the DTMF digits can be displayed on a pager. For example:

- ☐ A caller leaves a page message of 5557890.
- ☐ If the subscriber tries to retrieve this message, *PathFinder* plays: "Five, five, five, seven, eight, nine, zero."
- ☐ If a subscriber has a pager for notification of new messages (and is not using a notification command file), *PathFinder* sends these DTMF digits to the paging company and the mailbox owner is notified on the pager rather than via the voice mailbox.

Message Type Menu

Select this option if you want *PathFinder* to present the caller with a menu such as: "To leave a voice message, press 1; To send a fax, press 2."

Leave this option off if mailbox owners are offering access to different message type options in their individual mailbox greetings.

Message Length

This option determines the amount of time allocated to a message. After the specified number of seconds has elapsed, the caller is presented with the normal *Send* menu as if the caller had pressed a key to stop recording. A length of 120 seconds is recommended.

Message Count

This option determines the maximum number of messages that can be stored in a mailbox. When the number of messages in a mailbox exceeds this parameter, the mailbox plays a *Full* message. No further messages are accepted until the number of messages in the mailbox is reduced. A maximum of fifty messages is recommended.

Message Retention

PathFinder can automatically delete messages that have been stored longer than a specified amount of time. Specify that time period in this field. Thirty days is the recommended default retention period; this can be extended or shortened, depending on your specific needs and hard disk storage capacity. The maximum value for this field is 999.

Record Key

Leave this off if you want *PathFinder* to automatically begin recording a voice message. When this is turned on, the caller must first press a key to start recording.

Mailbox Caller Settings

Mailbox caller options are choices given to a caller when leaving a message. These options are available only after the caller presses a key to terminate recording a message.

Click on **Mailbox Caller** in the *Edit COS* window to begin defining mailbox caller options for the COS. The following window displays:

Figure 5-40 shows the "Edit COS BASIC: Voice Mail Caller" window. The window contains the following settings:

- Record Stop Key:** ☐ 8=Urgent Send
- Caller Record Options:** ☒
- Caller Send Options:**
 - ☐ Urgent
 - ☐ Confidential
- Last Options:**
 - ☐ Off
 - ☒ On
 - ☐ Menu
- Last Options Menu:** 100

Buttons on the right: Done, Help.

Page navigation at the bottom: << < Page Page 4 of 7 Page > >>

Figure 5-40: Edit COS Voice Mail Caller Settings Window

Record Stop Key

Select this option to activate the one-key urgent message send feature. With this option turned on, if an outside caller presses 8 to end the recording of a voice message, the message is marked as urgent, sent, and the caller proceeds to *Last Options*.

Caller Record Options

If this option is selected and the caller presses a key after leaving a voice message, the caller hears the following menu of options:

- ☐ Press 1 to send the message
- ☐ Press 2 to play the message
- ☐ Press 3 to cancel
- ☐ Press 4 to append the message
- ☐ Press 5 to re-record the message

Caller Send Options

Select **Urgent**, **Confidential**, or both if you want callers to be able to specify those options for the messages they leave.

- ☐ Urgent messages are preceded by an *Urgent* prompt and are played as the first of a group of messages.
- ☐ Confidential messages cannot be forwarded.

Last Options

Select according to what you want *PathFinder* to do once the caller has left a message. If set to **Off**, *PathFinder* says, Thank you and hangs up. If set to **On**, *PathFinder*'s default menu options are played. If set to **Menu**, the *Last Options Menu* is played (refer to "[Last Options Menu](#)" on [page 5-67](#)).

Setting this to **Off** limits a caller's ability to navigate *PathFinder*.

Last Options Menu

This determines what menu *PathFinder* plays if *Last Options* is set to **Menu** (see above). For more information on menus, refer to "[Menu Settings](#)" on [page 5-83](#).

Mailbox Owner Settings

Mailbox owner options determine the modifications individual subscribers can make to their personal mailboxes. Click on **Mailbox Owner** in the *Edit COS* window to begin defining mailbox owner options for the COS. The following window is displayed:

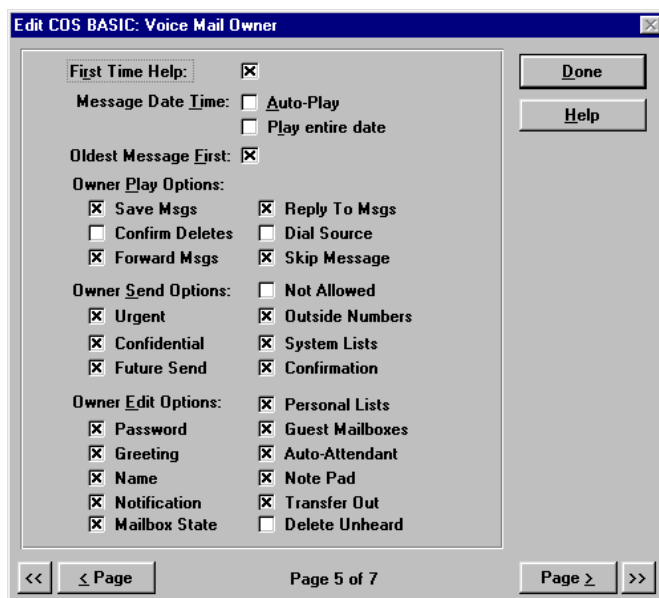


Figure 5-41: *Edit COS* Voice Mail Owner Settings Window

First Time Help

Check this option if you want each new subscriber prompted to record such essential parameters as a greeting, a mailbox name, and a password.

Message Date Time

PathFinder can announce the date and time that a message was received at the beginning of a message.

- ❑ Select **Auto-play** to have the date and time announced automatically at the beginning of every played message. If you leave this option off, the subscriber must press 8 to check the date and time.
- ❑ Select **Play entire date** to have the month, date, and time included in every date announcement. If you leave this set to off, for messages received today, only the time is repeated; messages received yesterday include the word “yesterday” and the time; messages received during the current week include the day of the week (e.g., Wednesday) and the time. Messages received more than a week earlier include the month and date of the message as well as the time it was received.

Oldest Message First

If this option is selected, messages are played in chronological order, starting with the oldest message in the mailbox. If this is left off, the newest message in the mailbox is played first when a subscriber checks the mailbox, with remaining messages played in the reverse of order received. Subscribers typically prefer that this option be left off.

Owner Play Options

Mailbox owners can be given several options for processing played messages, making mailbox management as simple or as sophisticated as desired. Detailed instructions on using these options are included in the *PathFinder User's Manual* and on the Quick Reference Card. The following options are available.

Field	Description
Save Msgs	Allows subscribers to save messages for later retrieval.
Confirm Deletes	Requires subscribers to press the [#] key after pressing [3] to delete a message, as a safeguard against accidental deletion.
Forward Msgs	Allows subscribers to forward messages to other mailboxes or to an outside number.
Reply To Msgs	Allows subscribers to press [5] while listening to a message and reply to the message.
Dial Source	Allows the subscriber to connect to the person responsible for sending the message. This can also include outside numbers if the originating phone number is known.
Skip Message	Allows subscribers to skip messages by pressing [6] and [3] while listening to a message.

Owner Send Options

These parameters determine the functions available to subscribers when sending messages. Detailed instructions on using these options are included in the *PathFinder User's Manual* and on the Quick Reference Card. The following options are available.

Field	Description
Not Allowed	Used for creating simple mailboxes to which none of the following options can apply.
Urgent	Allows the subscriber to assign urgent status to a message. Urgent messages are preceded by an <i>Urgent</i> prompt and are played as the first of a group of messages.
Confidential	Allows the subscriber to specify that a message cannot be forwarded.
Future Send	Allows delivery of messages at a future time and date.
Outside Numbers	Allows the subscriber to send a message to an outside number.
System Lists	Allows the subscriber to send messages to a system-wide list (the list is maintained by the administrator).
Confirmation	Enables the subscriber to request receipt information for a marked message, so <i>PathFinder</i> notifies the sender when a message has been heard.

Owner Edit Options

These parameters determine the mailbox customization available to subscribers within this COS. Detailed instructions on using these options are included in the *PathFinder User Guide* and the Quick Reference Card. The following options are available.

Field	Description
Password	Enables the mailbox owner to change the mailbox password. This is typically turned off when a mailbox is for temporary use, as with hotel guests.
Greeting	Allows mailbox owners to edit their own greetings; this option typically is enabled.
Name	Allows the owner to change the mailbox name, which is used in prompts associated with the mailbox.
Notification	Allows the owner to change such notification settings as the extension or phone number to call, and the time of notification (such as for a pager).
Mailbox State	Allows the owner to turn the mailbox off, set it to greeting only, forward calls to an extension, forward calls to a mailbox, or forward calls to menu. Typically not used when a simple mailbox is desired.
Personal Lists	Allows the subscriber to create up to ten personal lists and maintain them over the telephone.
Guest Mailboxes	Allows the owner to communicate with a guest who does not have a mailbox on <i>PathFinder</i> .
Auto-Attendant	Allows the mailbox owner to edit extension settings.
Note Pad	Grants the mailbox owner access to a personal voice note pad. The voice note pad is similar to a note pad referenced with an index. The index can be any eight-digit number with an associated voice file.

Field	Description
Transfer Out	Allows the mailbox owner to transfer to other extensions or mailboxes. This option should be turned off in a service bureau application or when the Auto-Attendant is not used.
Delete Unheard	Allows the mailbox owner to pull back messages that were sent to another local mailbox. <i>PathFinder</i> prompts the owner for the destination mailbox, and then check to determine if any unheard messages from the owner are still in the mailbox. <i>PathFinder</i> plays each message and allows the owner to selectively delete them.

Notification Settings

PathFinder has a variety of notification options that are used to tell mailbox owners when they have received a new message. Click on **Notification** in the *Edit COS* window to display these options. The following window is displayed:

Edit COS BASIC: Voice Mail Notification

Message Waiting: ☐ Off ☐ On: First Message ☒ On: Every Message

MWI Strings: On: Off:

Event Handler Group:

Voice Notify Options: ☒ Password Required ☒ Msg Pickup Allowed

Message Cascading: ☒ Off ☐ Immediate ☐ When Notify Fails ☐ On Urgent Only

Original Message: ☒ Leave as New ☐ Save Message ☐ Delete Message

Notification: mins attempts

Retry Pager: ☐

Notify Script: .CF

Buttons: Done, Help

Page Navigation: << < Page Page > >> Page 6 of 7

Figure 5-42: Edit COS Voice Mail Notification Settings Window

Message Waiting

PathFinder can send message waiting commands to telephone systems that support message waiting indicators or similar notification devices.

Off -- *PathFinder* does not send message waiting indicators to subscriber stations with this COS.

On: First Message -- *PathFinder* sends message waiting indicators only when the first message is received. This setting is particularly useful when the message waiting indicator is toggled between off and on.

On: Every Message -- *PathFinder* sends a message waiting indicator for each new message received by the subscriber.

Message Waiting Indicator (MWI) Strings

Normally, a phone system defines the MWI strings by the length of the extension in MWI/Notification. On some phone systems, it is necessary to define MWI strings on a per COS basis. The COS message waiting indicator string settings take precedence.

Default message waiting indicator settings are defined in the *Configuration* menu of MAINT. Refer to [“MWI/Notification” on page 5-21](#).

Event Handler Group

The Event Handler facility is used to program *PathFinder*'s notification lines. The default Event Handler Group is **5**. For notification to work, at least one of the phone lines must be assigned an event handler. Refer to [“Setting Up Phone Lines” on page 5-102](#) to complete configuration of the event handler.

Voice Notify Options

These options apply when *PathFinder* plays messages to the caller during notification. Refer to [Appendix A](#) for more information on how to configure *PathFinder* to play messages to the caller during notification.

- ☐ Set to **Password Required** to force the owner to enter a password to retrieve messages.
- ☐ Set to **Msg Pickup Allowed** to allow message retrieval without password entry.



Allowing message pick up without a password can undermine the privacy and security of the mailbox.

Message Cascading

This powerful option gives *PathFinder* great flexibility in delivering a message. Any incoming message, depending on the cascade setting, can be copied or forwarded to other mailboxes.



Refer to ["Cascade To" on page 5-50](#) for more information about configuring cascading options.

When *Message Cascading* is activated, either the message itself or a copy of the message also automatically "cascades" to another mailbox. Refer to ["Original Message" on page 5-76](#) for selecting options to decide what happens to the original message in the primary mailbox.

Use the following guidelines to set Message Cascading options:

- ☐ Set to **Off** to turn this option off.
- ☐ Set it to **Immediate** to cause cascading to begin immediately, allowing the message to be copied or forwarded to another mailbox. As an example, if the *Message Cascading* option is set to **Immediate** notification, then the following process occurs:
 - ☐ Mailbox A gets a message.
 - ☐ Mailbox A has notification activated.
 - ☐ The message immediately cascades to Mailbox B.

- Refer to *"Original Message" on page 5-76* for selecting options to decide what happens to the original message in the primary mailbox.
- Set it to **When Notify Fails** to allow the message to be copied or forwarded to another mailbox or other mailboxes only when the notification has failed and a mailbox owner has not retrieved the message. As an example, if the *Message Cascading* option is set to **When Notify Fails**, then the following process occurs:
 - Mailbox A gets a message.
 - Mailbox A has notification activated, and the complete notification takes 30 minutes.
 - If the owner of Mailbox A does not save or delete the message after 30 minutes, then the message will cascade to Mailbox B.
 - Refer to *"Original Message" on page 5-76* for selecting options to decide what happens to the original message in the primary mailbox.
- Select the **On Urgent Only** checkbox to activate either **When Notify Fails** or **Immediate** cascading only for messages marked **Urgent**.

Original Message

These options are available when *Message Cascading* is set to **Immediate** or **When Notify Fails**.

- **Leave as New** leaves the original message as a new message in the original mailbox. Remember that all new messages in the original mailbox will be cascaded. As an example:
 - A subscriber receives a new message at 9:00 a.m., and that message is cascaded.
 - The mailbox owner does not save or delete the message.
 - The subscriber receives a new message at 4:00 p.m.
 - Both new messages will be cascaded.
- Set to **Save Message** to cause the message to be saved in the original mailbox once the forwarding is completed.
- Set to **Delete Message** to cause the original message to be deleted from the original mailbox once the forwarding is completed.

Notify Interval

This parameter determines the time interval between each notification attempt until the owner retrieves the message. The time is measured in minutes, with a maximum interval of 999 minutes.

Notify Retries

This parameter determines how many times *PathFinder* attempts to notify a mailbox owner after receiving a new message. The maximum number of attempts is 99.

Retry Pager

This option only applies to pager notifications. It allows notifications to a pager to be repeated if *PathFinder* detects a busy or no answer when calling a paging company. In other words, if *PathFinder* detects a busy or no answer, *PathFinder* does not consider that an attempt to notify the paging company has been made and retries the attempt later.

Notify Script

This powerful feature allows complex notification scripts to be created on a per COS basis. This option can only be used if a notification script has already been written. Refer to [Appendix A](#) for instructions on creating notification scripts.

Auto-Attendant Settings

These options determine the handling of several automated operations with *PathFinder*.

Click on **Auto-Attendant** in the *Edit COS* window to display these options. The following window is displayed:

Edit COS BASIC: Automated Attendant

Call Options: ☒ Blind Transfers
☒ Supervised Transfer
☒ Screening
☒ Holding
☐ Extended Options

Hold Type: ☒ Silence
☐ Dial Hold Sequence
☐ Play Hold Files

Hold Interval: seconds

Call Queueing: ☐

Screen Length: seconds

Play Call Source: ☐

Transfer Strings: + ext +

<< < Page Page 7 of 7 Page > >>

Figure 5-43: *Edit COS* Automated Attendant Settings Window

Call Options

Call options describe what extension settings the subscriber can change via their mailbox. Typically, these options should be disabled as the subscriber could significantly alter the behavior of their mailbox and extension settings.

- ❑ Select **Blind Transfer** to allow unsupervised call transfer where *PathFinder* forwards the call to the requested extension. This option is commonly used with hunt groups.
- ❑ Select **Supervised Transfer** if you want *PathFinder* to monitor the transfer to determine whether the called extension is busy or is not being answered. If you select Supervised Transfer, you can check either or both of the following:

Screening -- When a caller dials an extension, Call Screening prompts for a name. This information is given to the called party before the call is actually transferred. The called party can either accept or reject the call.

Holding -- This allows the caller to hold if the called party is busy. *PathFinder* plays: "I'm sorry, <subscriber's name> is busy. If you would like to hold, press 1. To try another extension or leave a message for this extension, press 2."

Extended Options

This option provides the mailbox owner with more control over the forwarding of the mailbox and extension. Without this option on, the owner can only modify extension settings. With this option on, the owner can specify a destination mailbox or extension.

Hold Type

This setting determines what callers hear if an extension is busy and they elect to be put on hold.

- ❑ Setting this to **Silence** keeps the call connected, but the caller hears nothing while on hold.

- ❑ **Dial Hold Sequence** causes *PathFinder* to execute a flash-hook when the caller is placed on hold (if provided by the phone system, the flash-hook activates background music).
- ❑ If set to **Play Hold Files**, the caller hears recorded messages prepared for *PathFinder*. Up to nine hold files can be recorded. Hold files are saved in the VOX subdirectory, and have the following naming convention:
 - ❑ HELLONT\VOX\AAHOLD.0
 - ❑ HELLONT\VOX\AAHOLD.1
 - ❑ HELLONT\VOX\AAHOLD.2

Hold Interval

This setting determines how long *PathFinder* waits before retrying a busy extension. For example, if *PathFinder* attempts to ring a busy extension, and if the hold interval is set to ten seconds, it retries the extension every ten seconds until a connection is made or until the retry limit is reached. The time is measured in seconds, with a maximum interval of 999 seconds.

Call Queuing

This option allows multiple calls to be placed on hold for a single extension. Turning on call queueing causes *PathFinder* to hold the calls in a queue until they are answered. Queued calls are answered in the order received. Refer to *"Auto-Attendant" on page 5-4* for more information on Call Queue Intervals and the like.

Call Holding must be enabled in the subscriber's **Extension** settings for Call Queueing to function properly. Refer to *"Extension Settings" on page 5-51* for more information.

Screen Length

This option determines the amount of time by which a caller must respond with a name when prompted to do so through Call Screening. The time is measured in seconds, with a maximum value of 999 seconds.

Play Call Source

Activating this option means that if a message is left in a mailbox to which an extension was forwarded, the originally dialed extension is identified at the start of the message with a prompt (e.g., "Message from John Smith," if the call was originally intended for John Smith's extension, which was forwarded to the extension from which the message is retrieved).

Transfer Strings

Default transfer strings are typically configured in the telephony settings. Refer to *"Transfer Settings" on page 5-30* for more information. Any setting configured here overrides the default configuration. Configure the transfer prefix and postfix for any subscriber using this class of service.

Creating a COS

A class of service provides an easy way to modify an entire group of mailboxes or extensions. By supporting multiple COSs, *PathFinder* provides you the ability to provide subscribers with options to features on an as-needed basis.

To create a new COS, perform the following steps:

1. Click on the **COS** icon (the second button on the *PathFinder* MAINT tool bar). The following window is displayed:

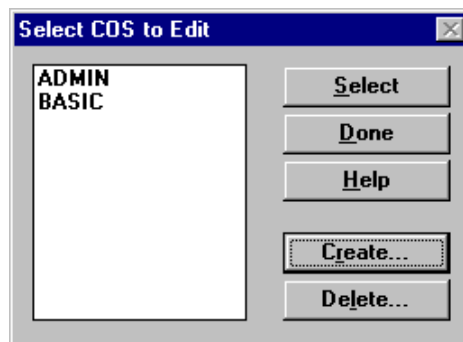


Figure 5-44: Select COS to Edit Window

2. Click on **Create** in the *Select COS to Edit* window.
3. If you are using a template COS, select the template from the drop-down list.
4. Enter a name for the COS (twenty characters maximum), using any combination of alphanumeric characters. Choose a name that describes the group of users in this COS.
5. Click on **Create** to return to the *Select COS to Edit* window.
6. Highlight the COS you created, and click on **Select**. The following window is displayed, from which you can begin defining the COS.

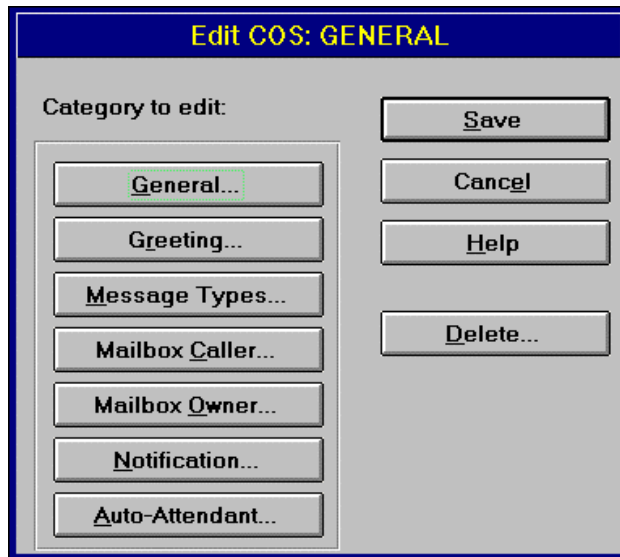


Figure 5-45: Edit COS Window (for the COS named *General*)

7. Edit the parameters for this COS. There are seven edit categories, listed at the left of this window. Once you have selected a category, you can reach another by clicking on the page controls that display at the bottom of the window. Refer to the following topics for more information on each category:
 - ❑ ["General Settings" on page 5-59](#)
 - ❑ ["Greeting Settings" on page 5-61](#)

- ❑ [“Message Types Settings” on page 5-63](#)
- ❑ [“Mailbox Caller Settings” on page 5-66](#)
- ❑ [“Mailbox Owner Settings” on page 5-68](#)
- ❑ [“Notification Settings” on page 5-73](#)
- ❑ [“Auto-Attendant Settings” on page 5-77](#)

Modifying a COS

If you need to make adjustments to the COS you’ve defined, perform the following steps:

1. Start up *PathFinder* MAINT.
2. Click on the **COS** button on the toolbar.
3. Highlight the COS to modify, then click on **Select**.
4. Click on the button that corresponds to the category of function to be changed. If you need to move from one category to the next, use the page controls that appear at the bottom of the window after you select a category.

Deleting a COS

To delete a COS entirely, perform the following steps:

1. Start up *PathFinder* MAINT.
2. Click on **COS** on the toolbar.
3. Highlight the COS to delete, then click on **Delete**.

Menu Settings

The MAINT application allows you to configure *PathFinder*. This section describes the menu functions available through the *Edit* menu in MAINT.

PathFinder provides sophisticated multi-level menuing capabilities that can be used to direct users and callers to information, assist them in performing tasks, and guide them in their use of *PathFinder*. Menus combine other modules and features to create sophisticated call processing applications. Before going into a detailed description of the menu module, two terms must be defined:

- **Menu:** A list of actions executed through touch-tone keys. For example, "Press 1 for sales. 2 for support. 3 for administration...." A menu can invoke up to fourteen actions, with each action corresponding to a key on a standard telephone keypad (including * and #), plus two actions as defaults.
- **Action:** An instruction that is selected from the *Menu Action List*. It tells *PathFinder* how to respond when a specific key is pressed. An action can invoke another module (transfer a call to an extension through the Auto-Attendant) or perform a special feature (play a prerecorded message).

Before setting up complicated, multi-level menus, read through the information in this section. It is important that you understand the mechanics of building a menu before you begin.

Designing a Menu

A good way to begin creating a menu is to draft it on paper. Initially, ideas may not seem sufficiently organized to warrant flow charting; if this is the case, just jot them down. Don't worry about the specific order of menu items at this stage; it is more important to get all the ideas down so that alternatives won't be forgotten. Once this is done, begin the process of building a menu flow chart.

The flowchart below illustrates the design of a typical multi-level menu. As you create your own menu, you should include as much detail as possible to avoid menu conflicts. Once you have generated a flowchart, you are ready to begin creating your menus.

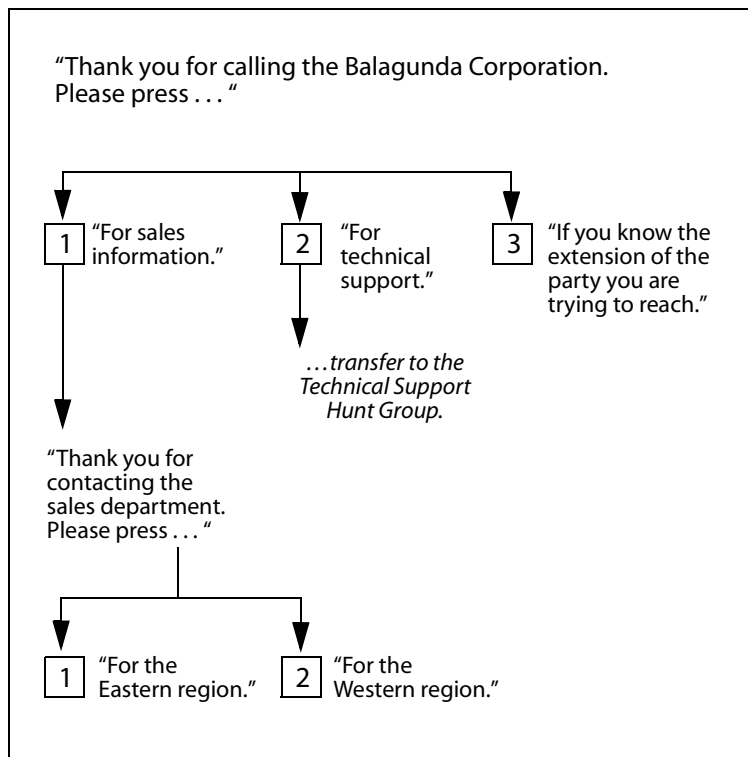


Figure 5-46: Sample Flow Chart for Menu Design

A menu must be created before you can add commands to it or make changes to it. To work with menus, click on **Menu** on the tool bar. The following window displays:

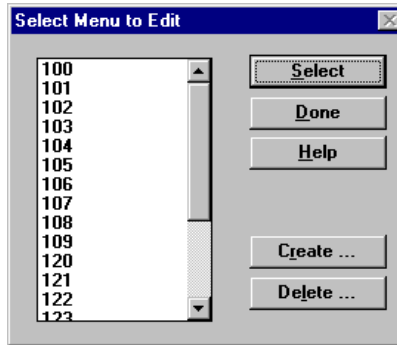


Figure 5-47: Select Menu to Edit Window

From here, you can create a menu, delete a menu, or select a menu to edit.

Creating a Menu

To create a menu, perform the following steps:

1. In the *Select Menu to Edit* window, click on **Create**.
2. Enter a name for the menu, up to eight characters.
3. Select from the *Template* field's drop-down list a template menu upon which the new menu can be based. For example, if a menu called *Day* already exists, and you want to create a new menu called *Night* that is similar to the *Day* menu, select *Day* as the template menu. You may also choose to leave the *Template* field blank.
4. Click on **Create Menu** to return to the *Select Menu to Edit* window, highlight the new menu name, and click on **Select** to move to the *Edit Menu* window.

Deleting a Menu

To delete an old or unneeded menu:

1. In the *Select Menu to Edit* window, highlight the menu to remove.
2. Click on **Delete**, then click on **OK** when the confirmation prompt is displayed.



Prompts that are associated with the deleted menu remain on *PathFinder* so that other menus can use them. Eventually, *PathFinder* clean-up procedures delete unused prompts.

Editing a Menu

The **Edit Menu** function is used to edit both new and existing menus.

To edit a menu, perform the following steps:

1. In the *Select Menu to Edit* window, highlight the desired menu, then click on **Select**. The following window is displayed:

Edit Menu: 101

General

Name: 101 Password: 2275

Description: Day Menu Time Out: 5 secs

Time Control: NONE Retries: 3

Voice Prompts

Introduction: ... Body: ... Instructions: 101.VOX ...

Actions

* Key : Play Instructions	4 Key : Company Directory Aa
# Key : Mailbox	5 Key : Company Directory Vm
0 Key : Operator	6 Key : Invalid Option
1 Key : Extension START	7 Key : Mailbox
2 Key : Extension START	8 Key : Record Prompts
3 Key : Extension START	9 Key : Hang Up
Max Retries : Operator	Time-Out : Operator

OK Cancel Help Delete...

Figure 5-48: Edit Menu Window (for a menu named "Banking")

2. The menu name is listed at the top of the editing window. Configure fields and options in the general pane as follows:

Password -- Specify the password to protect the on-line recording action. This password is required when a caller accesses the action **Record Prompts**.

Description -- Enter a brief description of the menu's function to remind you of its purpose.

Time Out -- Specify the length of time after which, if the caller presses no key, the specified action is to run.

Time Control -- Calls are often processed differently in the evening, during the weekend, or on holidays than they are processed during regular business hours. The time control function lets you define a set of alternative actions that *PathFinder* performs for calls during defined time periods. Refer to "[Time Control Settings](#)" on page 5-93 for more information on time controls. If you do not intend to use time controls, set this value to *None*. Use caution when configuring this option, as it may cause unexpected behavior.

Retries -- Specify the number of times a caller can initiate an invalid option. If the caller initiates more than the maximum number of allowed invalid options, the **Max Retries** key action is taken. The maximum value for this field is 999.

3. Settings in the voice prompts pane describe information played for callers to assist them in deciding which keys to press. The voice prompts are played in order from *Introduction*, to *Body*, to *Instructions*. If no voice prompt is defined, *PathFinder* plays the next prompt in the sequence. To the caller, the sequential voice prompts appear as a single prompt.



Usually, the first menu in a multi-level structure has an introduction and possibly a body prompt file. Almost all menus have instruction prompt files. Additionally, the introduction prompt is played only in the initial (first) menu, and any subsequent menus will not play the introduction prompt. However, these prompt files are dependent on the application design.

Configure the voice prompts pane as follows:

Introduction -- Type or select the prompt file to be played first. This prompt should include something like: "Thank you for calling Widget Corporation." Typically, only the first menu accessed for a caller plays an Introduction prompt.

Body -- Type or select the prompt file to be played after the introduction prompt. This prompt is not used in most menus. A typical body prompt might be:

"Widget Corporation is a company that specializes in high-tech widgets . . ."

Instructions -- Type or select the prompt file to be played after the body prompt (if there is one). The instructions prompt should contain information the caller needs to decide which keys to press. A typical instruction prompt would be:

"For sales, press one; for support, press two . . ." and so on.



*Menus are often designed to branch to other menus (submenus). **PathFinder** plays an introduction prompt for only the very first menu accessed. Any introduction for a submenu must be recorded as part of the body prompt (or the instruction prompt, if there is no body prompt). For example, a "Sales" submenu instruction prompt might be: "Thank you for calling the sales department. For distribution sales, press 1; for direct sales, press 2..."*

The ellipses (. . .) button displays a list of all user-recorded prompts. This allows you to select a pre-recorded prompt.

4. The bottom part of the window addresses Key Actions. Key actions determine the response invoked when a particular key is pressed. Each dial-pad key has an accompanying key action field.



*There is a special field labeled **Time-Out**. The **Time-Out** field indicates what happens when the caller does not press any keys before the time-out period elapses.*

*The **Max Retries** key action is another special field. The **Max Retries** setting indicates what happens when the caller presses an invalid key one time more than the retries setting.*

Clicking any **Key Action** button displays the list of options. When you select an option, further options display in the right side of the window, when appropriate. Define each key in this window. Refer to [“Key Action Definitions” on page 5-90](#).

Key Action Definitions

Define key actions in the *Edit Menu* window by clicking the corresponding **Key Action** button. Fields in the resulting window can be configured as follows:

Table 5-1: Key Action Definitions

Key Action	Definition
MAILBOX	Sends the caller to a specific mailbox.
Ask for Mailbox	<i>PathFinder</i> prompts the caller to enter a mailbox number. For example, if the 1 Key is set to Ask for Mailbox , then callers press 1, they hear, “Enter the mailbox number of the person you are trying to reach. Press zero for the operator. Press the star key for the directory.”
Start Key	The first digit of the mailbox you are trying to access. For example, if the 2 Key is set to Start Key , then when the caller presses 2, they will not hear a prompt, and the system will wait for more digits. <i>NOTE -- If you assign 2 as the mailbox Start Key, then you must have mailbox numbers that start with the digit 2.</i>
Specific Mailbox Number	The caller is transferred directly to the mailbox indicated. For example, if the 3 Key is set to send to Specific Mailbox Number 4401, then when callers press 3, they are transferred directly to mailbox 4401.
EXTENSION	Sends the caller to a specific extension.
Ask for Extension	<i>PathFinder</i> prompts the caller to enter an extension number. For example, if the 1 Key is set to Ask for Extension , then callers press 1, they hear “Enter the extension number of the person you are trying to reach. Press zero for the operator. Press the star key for the directory.”
Start Key	The first digit of the extension you are trying to access. For example, if the 2 Key is set to Start Key , then when the caller presses 2, they will not hear a prompt and the system will wait for more digits. <i>If you assign 2 as the extension Start Key, then you must have extension numbers that start with the digit 2.</i>

Table 5-1: Key Action Definitions

Key Action	Definition
Specific Extension Number	The caller is transferred directly to the extension indicated. For example, if the 3 Key is set to send to Specific Extension Number 123, then when callers press 3, they are transferred directly to extension 123.
Menu	Executes the selected menu.
Owner Access	Gives access to mailbox owner menus. This is used with in-band integration or to provide access through a hidden key on a menu.
Run Module	Runs other modules that <i>PathFinder</i> supports.
Time Control	Enter the time control to run. This option takes actions based on time, date, and day of the week settings. Refer to <i>"Time Control Settings" on page 5-93</i> for more information on time controls.
Command File	Runs the command file script. Refer to <i>Appendix A</i> for additional information on command files.
Company Directory	Provides a company directory listing, for either mailboxes or extensions.
Fax On Demand	Refer to the Fax-related sections of the <i>Optional Modules</i> manual for more information on this option. Fax modules are optional and are sold separately. You can activate this option if you have purchased the Fax module(s). The following choices are available: <ul style="list-style-type: none"> <input type="checkbox"/> May be left blank to have the caller select fax documents <input type="checkbox"/> May contain a document number <input type="checkbox"/> May contain ADMIN to allow the caller to access fax-on-demand administrative functions
Run ActiveVex	Runs an <i>ActiveVex</i> module. <i>ActiveVex</i> is a proprietary development language used to create custom applications.
Operator	Transfers caller to the General Operator. Refer to <i>"Operators" on page 5-9</i> for more information on Operator settings.
Invalid Option	Plays the message "Invalid option" and repeats the instructions.
Disabled Key	Pressing a key with this action has no affect at all. It is as if the key were never pressed.

Table 5-1: Key Action Definitions

Key Action	Definition									
Play Prompt	<p>Plays the indicated voice prompt file. Alternatively, you can select a prompt based on its directory location (directory number listed below) and the specific file name, such as 4 : help . vox. The available directories include:</p> <table><tr><td>1: Modules</td><td>4: VOX</td><td>7: dBase</td></tr><tr><td>2: Prompts</td><td>5: Mailbox</td><td>10: Data</td></tr><tr><td>3: Messages</td><td>6: Menus</td><td>20: Data</td></tr></table> <p>For example, to have <i>PathFinder</i> play the mailbox greeting for mailbox 345, type 3 : 345 . GRS as the prompt name.</p>	1: Modules	4: VOX	7: dBase	2: Prompts	5: Mailbox	10: Data	3: Messages	6: Menus	20: Data
1: Modules	4: VOX	7: dBase								
2: Prompts	5: Mailbox	10: Data								
3: Messages	6: Menus	20: Data								
Play Instructions	Replays the instructions prompt, such as, “To hear this menu again press...” Only the instruction prompt associated with the menu is played.									
Record Prompts	Allows a caller to re-record prompts for a menu. The caller, after pressing the key associated with this action, is prompted for the menu password. The Introduction, Body, Instructions, or any play prompt file attached to a particular key can then be recorded or edited.									
Change Language	Changes the prompt files that are used to those recorded in the selected language. Only languages that you have purchased are available.									
Hang Up	Plays the hang up message “Thank you for calling” prior to disconnecting the caller. For example, a menu might include this option at the end of a list, “Press 1 for sales, 2 for support, # to return to the previous menu, and 9 to hang up”. If the caller presses 9, the hang up message plays.									
Max Retries	This field determines the number of incorrect attempts that callers are given when entering key presses.									
Time-Out	The amount of time the caller has in which to enter a response after all menu prompts have been played. <i>PathFinder</i> executes the Time-Out action once this time limit has been exceeded. 5 seconds is usually sufficient. The maximum value for this field is 999.									

Time Control Settings

The MAINT application allows you to configure *PathFinder*. This section describes the time control functions available through the *Edit* menu in MAINT. Time controls are settings that allow *PathFinder* to activate or disable extension and mailbox features depending on date, day, and/or time settings.

Time controls can be used to route calls, send callers to voice mail, and play menus, among other things based on time and day settings.

- ❑ Up to ten distinct time periods can be defined within a time controls setting, allowing you to make a time control as simple or as complex as needed.
- ❑ Time control searches by date, then by day, then by time.
- ❑ Time controls can be chained together to allow more than ten day/time options.
- ❑ You can use the time control function to:
 - ❑ Edit a time control
 - ❑ Create a new Control
 - ❑ Delete a Control

Setting Up Time Control Parameters

To work with time controls, click on the **Edit Time Control Records** icon on the toolbar (fourth icon). The following window displays:

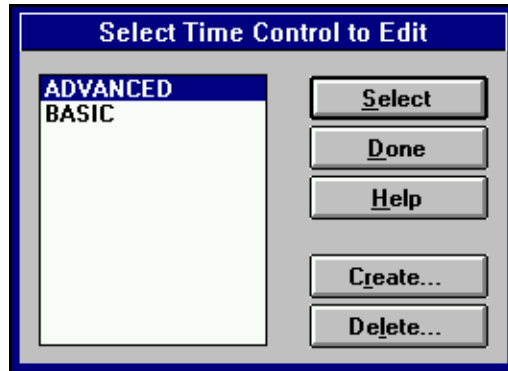


Figure 5-49: Select Time Control To Edit Window

Creating a Template Time Control

If you are creating multiple time controls with similar settings, the use of a template time control is helpful. The template time control is a time control with the basic settings defined and is copied when creating new time controls. Typically, you would use the **8-5** time control as the template time control. However, if you would like to create a specific template time control, perform the following steps:

1. In the *Select Time Control to Edit* window, click on **Create**. This displays the *Create Time Control* window.
2. Enter a name of up to eight characters in the *Time Control Name* field.
3. Click on **Create** to return to the *Select Time Control to Edit* window.
4. Edit the new template time control; refer to [“Editing a Time Control” on page 5-96](#).

Creating a Time Control

A time control must be created before it can be edited. Creating a time control is the process of assigning the time control a name and entering a description.

To create a new time control, perform the following steps.

1. In the *Select Time Control to Edit* window, click on **Create**. The following window displays:

The image shows a dialog box titled "Create Time Control". It has a blue header bar with the title in white. The main area is light gray. On the left, there are two labels: "Time Control Name:" and "Template Time Control:". Below "Time Control Name:" is a text input field. Below "Template Time Control:" is a pull-down menu with a small downward arrow icon on the right. On the right side of the dialog, there are three buttons stacked vertically: "Create", "Cancel", and "Help".

Figure 5-50: Create Time Control Window

2. Enter a name of up to eight characters in the *Time Control Name* field.
3. If you want to use an existing time control as a template for the one you're creating, select it from the *Template Time Control* pull-down list. If no template is selected, the Time Control will be blank.
4. Click on **Create** to return to the *Select Time Control to Edit* window.
5. You can now edit the new time control; refer to ["Editing a Time Control" on page 5-96](#).

Editing a Time Control

The edit time control function is used to edit both new and existing time controls. If the *Select Time Control to Edit* window is not displayed, click on the **Edit Time Control Records** icon on the toolbar. To edit the time control, perform the following steps.

1. Highlight the time control to edit, then click on **Select**. The following window displays:

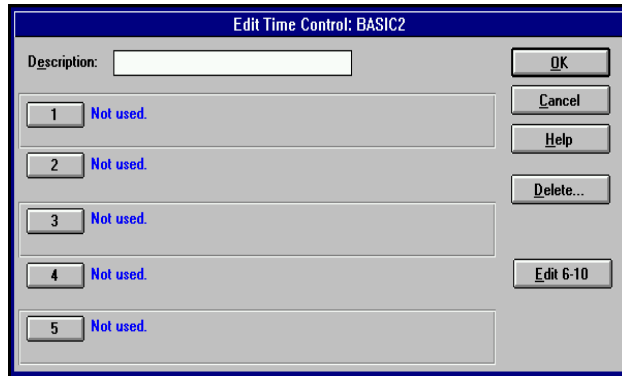


Figure 5-51: Edit Time Control Window



The window illustrated above shows a newly created time control, with all fields blank. When you edit an existing time control, the fields already have options entered and displayed.

2. If necessary, type a description for the time control.

3. To define the first line item of the time control, click on **1**. The following window displays:

Edit Time Control Line Item: 1

Date
Start: End:

Time
Start: End:

Day of Week
☒ Monday ☒ Thursday ☒ Saturday
☒ Tuesday ☒ Friday ☒ Sunday
☒ Wednesday

Action

Time Period:

Figure 5-52: Edit Time Control Line Item Window

4. In the date fields, enter a *Start* and *End* date, using MM/DD format (01/01 through 12/31), to indicate specific starting and ending dates to which this line item in the time control applies.

5. In the time fields, enter a *Start* and *End* time, using GMT, twenty-four hour format (00:00 through 24:59), to indicate the specific times during the day that this line item in the time control is active.



When specifying start and end dates and times, the following guidelines apply:

- ☐ Leaving the *Start* field blank will cause *PathFinder* to assume the lowest value, i.e. 01/01 or 00:00.
 - ☐ Leaving the *End* field blank will cause *PathFinder* to assume the highest value, i.e. 12/31 or 23:59.
 - ☐ Leaving both fields blank will cause *PathFinder* to assume all dates or times, i.e. 01/01 to 12/31 or 00:00 to 23:59.
 - ☐ The *Start* date/time must always be earlier than the *End* date/time. A *Start* Time of 17:00 and an *End* Time of 08:00 (i.e., 5:00 p.m. to 8:00 a.m.) is *INVALID* and may cause *PathFinder* to behave erratically.
6. In the day of week fields, select the checkbox for each day to which this line item in the time control applies, and clear the checkbox for each day to which this line item in the time control does not apply.
 7. In the *Time Period* field, enter a number from 1 to 9 to distinguish different time-related events within a time control. *Time Period* is most often used to control what mailbox greeting is played when a mailbox is reached. Typically, *PathFinder* uses 1 for daytime, 2 for evening, and 3 for weekend. If in doubt, set the *Time Period* field to 1.

8. Click on **Edit Action** to select the specific action to be performed during the indicated dates, days of the week, and hours during the day. The following window displays:

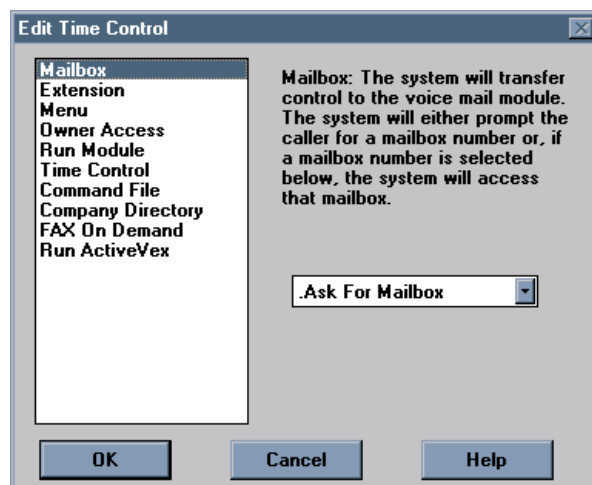


Figure 5-53: Edit Time Control Window

9. Click on the action key that you want to configure. A brief description of each action appears to the right of the window as it is selected.



If you do not select any action, no time control action is performed.

10. Select options from the time control action list as follows:

Field	Description
Mailbox	Sends the caller to the specific mailbox you select from a drop-down list. Selecting Ask for Mailbox causes <i>PathFinder</i> to prompt the caller for a mailbox number.
Extension	Sends the caller to the specific extension you select from a drop-down list. Selecting Ask for Extension causes <i>PathFinder</i> to prompt the caller for an extension number.
Menu	Executes the selected menu.
Owner Access	Prompts the caller for a mailbox and password, or only for a password if you select the mailbox from the drop-down list.
Run Module	Runs other <i>PathFinder</i> modules.
Time Control	Loads a time control and executes the time control action for the computed time period.
Command File	Runs the indicated command file. Refer to Appendix A for more information on command files.
Company Directory	Provides a company directory listing according to your selection for Mailbox mode or Extension mode.
Fax on Demand	Provides a choice of entries including blank (caller select document to be faxed), a document number to be faxed to the caller, or ADMIN (allow caller to access Fax on Demand administrative functions). This option functions only if you have purchased the optional Fax-On-Demand module and have enabled it on the software key.
Run ActiveVex	Enables the <i>ActiveVex</i> module. <i>ActiveVex</i> is a proprietary development language. Select this option only if you have an <i>ActiveVex</i> module installed on your system.

11. Click on **OK** until you return to the *Edit Time Control* window.

Repeat steps 3. through 11. of the above process until all lines of the time control have been defined. Clicking **Edit 6-10** in the *Edit Time Control* window provides access to a second series of lines.

Once all options have been set and saved, you can begin to use the time control. Time controls can be used in mailbox, extension, and menu settings. Refer to Chapter 5 for details on using time controls.

- ☐ [Voice Mail, Auto-Attendant, & Menuing Time Periods](#)
- ☐ [Mailbox Settings](#)
- ☐ [Extension Settings](#)
- ☐ [General Settings](#)
- ☐ [Editing a Menu](#)
- ☐ [Setting Up Phone Lines](#)

Deleting a Time Control

As demonstrated above, time controls can be as simple or as complex as needed. When used in conjunction with menuing options (refer to "[Menu Settings](#)" on page 5-83), time controls provide *PathFinder* with a tremendous amount of control and flexibility in processing calls.

The delete time control function is used to remove any time control that is no longer of use. To delete a time control, perform the following steps.

1. Click on the **Edit Time Control Records** icon on the toolbar.
2. Highlight the time control to delete, then click on **Delete**.
3. When prompted if you want to proceed with the deletion, click on **OK**.

Line Settings

The MAINT application allows you to configure *PathFinder*. This section describes the line settings available through the *Edit* menu in MAINT.

The modular nature of *PathFinder* allows you to assign a specific module or application function to each telephone line (also referred to as a port or channel). When a caller dials a specific line, *PathFinder* runs the module that has been assigned to that port.

Assigning Port Modules

You should read this section before actually assigning any modules to a line. Then, read the sections of the manual that describe the modules you plan to install. When you have finished, return to this section to complete setup for your *PathFinder* phone lines.

System Partitioning

It is important to note that each line is independent from the other lines and can be programmed to perform a unique function. This is referred to as system partitioning. It allows you to run multiple telephone automation applications with a single *PathFinder* installation.

To program system partitioning, perform the following procedure for each line:

- ☐ Select the line
- ☐ Select a module to install on the line
- ☐ Define parameters, if any, that regulate how the installed module functions

Setting Up Phone Lines

Each phone line must be set up to run an initial module when *PathFinder* starts. This is the process of selecting a starting function for each line and assigning any needed parameters to that line. You can selectively define separate functions for every phone line.

To set up phone lines, perform the following steps:

1. Click on the **Line** icon in the toolbar. A window similar to the following displays:

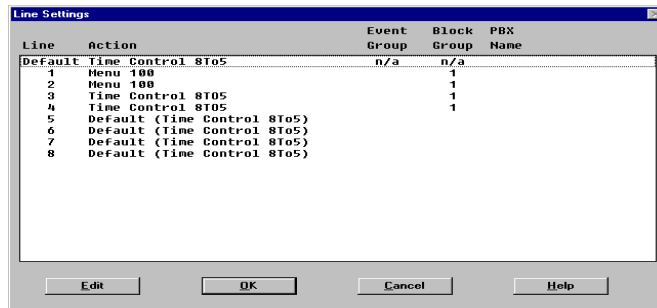


Figure 5-54: Line Settings Window

2. *Default PBX Name* field: Allows you to specify the PBX name to be used for any lines that do not have a PBX name explicitly defined. In most configurations, you can leave this value blank or set it to ANALOG.
3. Highlight the line to configure in the *Line* field, then click on **Next**. The following window displays:

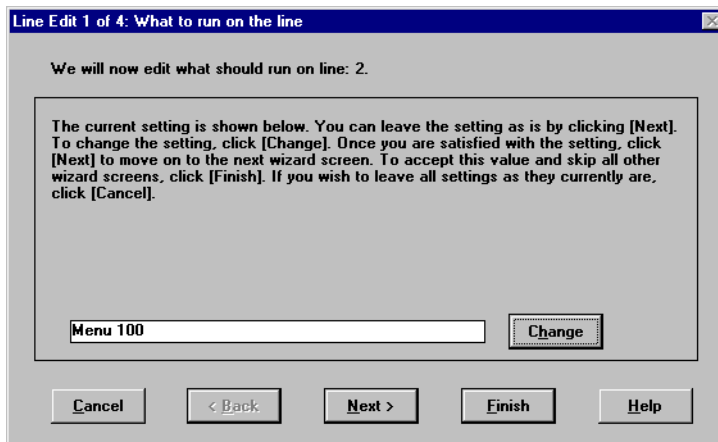


Figure 5-55: Edit Line Settings Window

- Click on **Next** to display the *Event Handling Group* window:

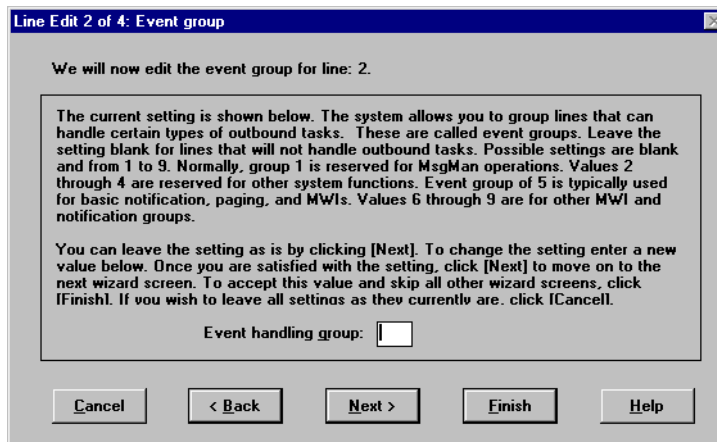


Figure 5-56: *Edit Line Setting Window*

- Click on **Next** to display the *Blockage Group* window:

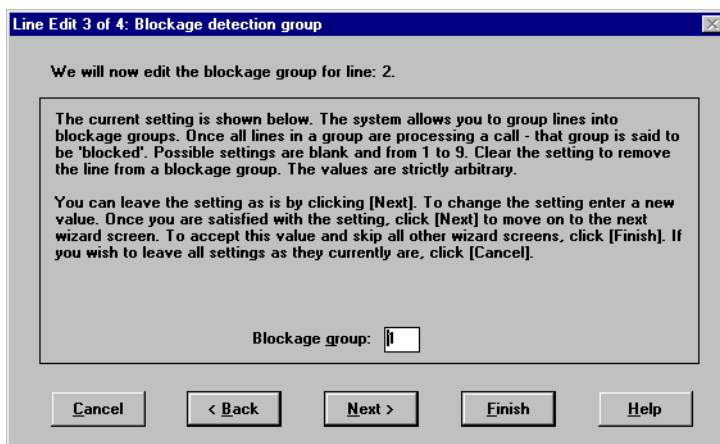


Figure 5-57: *Edit Line Setting Window*

6. Click on **Next** to display the *PBX Name* window:

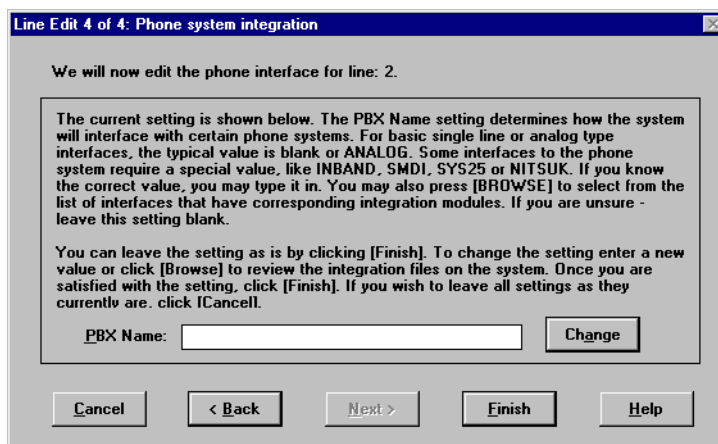


Figure 5-58: Edit Line Setting Window

7. Select a module from the list, address the options that appear at the right of the window (they vary according to the module selected), then click on **OK**. Refer to [“Suggested Initial Module Settings” on page 5-107](#) for more information on configuring these fields:

Field	Description
Mailbox	Prompts the caller to select a voice mailbox or sends caller to a specific mailbox, depending on your selection from the drop-down list.
Extension	Prompts the caller to select an extension or sends caller to a specific extension, depending on your selection from the drop-down list.
Menu	Plays the selected <i>PathFinder</i> menu.
Owner Access	Grants access to mailbox owner privileges for a specific mailbox, or prompts the caller for a mailbox, with password prompting in either case.

Field	Description
Run Module	Activates the selected module.
Time Control	Loads a time control file and takes the menu action specified in the current time period.
Command File	Runs the specified command file. Refer to Appendix A for information on command files.
Company	Sends the caller to the company directory, in your choice of mailbox mode or extension mode.
Fax On Demand	Provides a choice of entries including blank (caller select document to be faxed), a document number to be faxed to the caller, or ADMIN (allow caller to access Fax on Demand administrative functions). The Fax-On-Demand option is available only if you have purchased the optional Fax-On-Demand module and have enabled it on your software key.

8. Once you have selected the module and clicked on **OK**, you are returned to the *Edit Line Settings* window.

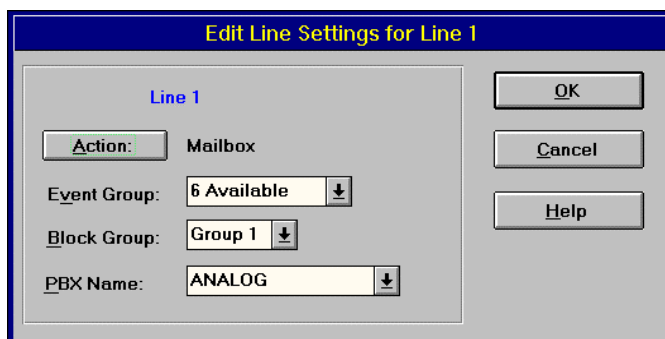


Figure 5-59: Edit Line Settings Window

-
-
9. Address the remaining fields as needed, according to the following guidelines:
 - ❑ **Event Group:** Select the group whose action is managed by this line. Multiple lines can be assigned to an event group, enabling any available line in that group to be used for the action. Note that at least one channel must be assigned to any event group you specify for Auxiliary Tasks, for Class of Service, and for outgoing faxes.
 - ❑ **Block Group:** Blockage detection determines when all lines assigned to a block group are in use. When all lines assigned to a particular block group are servicing a call, that group is considered blocked and a log line is generated. If, for example, all lines are in block group 1 and blockage is detected for that group, *PathFinder* is completely busy.
 - ❑ **PBX Name:** Select the appropriate PBX name. For most inband integrations, the *PBX Name* field should be left as **ANALOG**. For some other integrations, the *PBX Name* field will need to be changed. Do not change this field unless you are instructed to do so by Vodavi Technical Support.
 10. Repeat this process for each line.

Suggested Initial Module Settings

Set the initial module for each line according to *PathFinder*'s use and configuration.

The following are suggestions on appropriate uses of various options:

- ❑ If all calls to *PathFinder* are processed the same manner, regardless of time or date, use the same menu option for all ports.
- ❑ If calls are processed differently based on the time or date the call is received, select the **Time Control** option, along with the appropriate time control file.
- ❑ If your system has in-band integration, or if you prompt callers for only an extension or mailbox, select the **Mailbox** option.
- ❑ Select the **Extension** option if you have *PathFinder* running as a simple Auto-Attendant setup.

-
- ❑ Select the **Run Module** option if you are running a custom module, such as IVR.
 - ❑ Choosing **Command File** allows you to control the call more directly, through the use of a script, or through special functions of the PBX. This option requires some programming. Refer to [Appendix A](#) for more information.

6

Lists and Reports

The MAINT application allows you to configure *PathFinder*. This chapter describes the system lists functions available through the *Edit* menu in MAINT. One of the easiest ways to send a single message to many different mailboxes is through a system distribution list. *PathFinder* supports two types of distribution lists:

- System lists: Set up by the System Administrator; discussed in this chapter
- Personal lists: Set up by individual users; discussed in the *PathFinder User's Manual*

As an example, a system distribution list could be created for the Sales department. The Sales Manager (or any other *PathFinder* subscriber) could use this system distribution list to send one message that would be received simultaneously by each Sales employee in the list.

Distribution Lists

System distribution lists have the following characteristics:

- ❑ The number of lists that can be created is limited only by disk space.
- ❑ System lists do not need to be “front-ended” by a mailbox.
- ❑ System lists can be maintained using MAINT or over the telephone.
- ❑ System lists can contain up to 200 entries. An entry may be a mailbox number or another list number, allowing you to chain lists together.

System lists allow users to route messages simultaneously to groups of mailboxes. In addition to mailbox numbers, system lists can contain other list numbers, making it possible to create unlimited distribution lists.

Creating a System List

To create a system distribution list:

1. Select **System Lists** from the *Edit* menu.

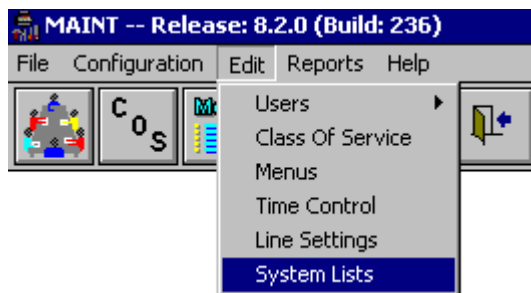


Figure 6-1: Edit > System Lists

The following window displays

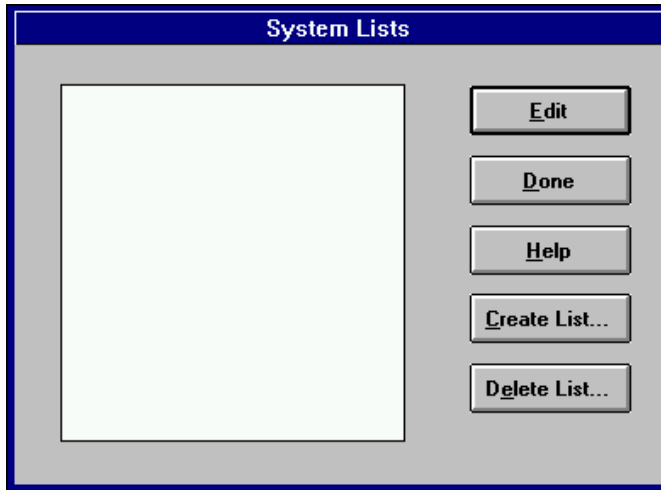


Figure 6-2: System Lists Window

2. Click on **Create List** to display the following window:

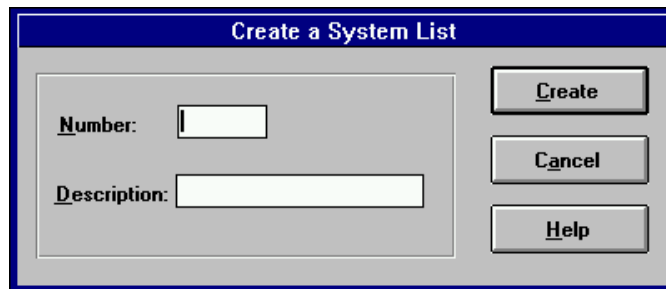


Figure 6-3: Create a System List Window

3. Assign a number for the list and type a description to describe the list's purpose. Click on **Create** to return to the *System Lists* window.



Do not enter a number that is also used as a mailbox number. Doing so will cause any message intended for the distribution list to be sent instead to the mailbox.

4. In the *System Lists* window, highlight the name of the list you are creating, then click **Edit** to display the following window:



List Members	
1621	SCOTT KELLY
1623	BO ALEXANDER

Buttons: Done, Help, Delete Member, Add Mailbox, Add List

Figure 6-4: Edit System List Window

5. You have created a system list. You can edit your new system distribution list to add mailbox numbers, list numbers, and other numbers.

Editing a System List

To edit a system distribution list by adding or deleting mailbox users or system list numbers, perform the following steps.

1. From the main MAINT window, select Edit > System Lists from the menu bar.
2. Select the system list that you need to edit, then click **Edit**.



You must first create a list before you can edit it. Refer to "Creating a System List" on page 6-3 for more information.

3. For each mailbox user you want to add, select the mailbox user from the *Mailbox* pull-down menu and click on **Add Mailbox**. Repeat this process for each mailbox user you want to add.
4. For each previously-created system distribution list you want to add, select the from the system distribution list from the *Other Lists* pull-down menu and click on **Add List**. Repeat this process for each system distribution list you want to add.
5. To delete a user from the list, highlight that user in the list members pane at the top of the window, then click on **Delete Member**.
6. When you are finished editing the distribution list, click on **Done**.

Deleting a System List

To delete a system list, perform the following steps.

1. From the main MAINT window, select Edit > System Lists from the menu bar.
2. Highlight the list to be deleted.
3. Click **Delete List**.
4. When prompted to confirm the deletion, click **OK**.

System Reports

Reports Overview

The MAINT application allows you to configure *PathFinder*. The following sections describe the *Reports* menu in MAINT, which includes options related to the following:

- ☐ *PathFinder* activity
- ☐ Reports settings
- ☐ *PathFinder* directory
- ☐ *PathFinder* logs
- ☐ Messages
- ☐ Greetings & Signatures
- ☐ Customized reports
- ☐ Reporting setup

PathFinder provides you with the ability to generate a variety of reports for diagnostic and information purposes. Reports can help diagnose problems, allocate resources, and improve *PathFinder*'s efficiency. This chapter discusses the various reports that can be output by *PathFinder* and how best to utilize them.

Reports Criteria

Reports criteria are used to select specific data when generating a report. To generate any of the *PathFinder* reports, select the report type from the *Reports* menu. A window displays in which you select the criteria appropriate to the particular report. The active fields available for selection criteria depend upon the report being generated.

Dialog Box Options

Date

Enter the complete start and stop dates, which must be in MM/DD/YY format (e.g., for November 21, 2001, enter 11/21/01). If the date fields are left blank, Maint selects all records with any date.

Time

Enter the complete start and stop times in 24-hour format (HH:MM:SS). If left blank, Maint selects all records with any time.

Mail Box, Extension, Menu, COS, or Time Control

Use the dropdown lists to select the appropriate first and last items for selection criteria.

Name, Fax Documents, or Look For

Enter the appropriate selection criteria range for the report you want to generate.

Dialog Box Considerations

- ☐ All reports are viewed with *Notepad*. If you wish to print or save a report, use Notepad to do this.
- ☐ In the *Settings* reports, if no data are available for a particular field, that field is not shown in the report. For example: If the *Department* field is blank, no *Department* field appears in the report.
- ☐ When entering selection criteria for a report, *PathFinder* remembers the last criteria entered in any report and offers that as a default selection. For example, if you run a mailbox settings report, the mailbox range used in that report appears when you run a different report with a mailbox range criterion.



The windows shown in the Reports chapter are intended to illustrate report structures, and may not reflect actual information or data.

Setup Reporting

The **Setup Reporting** item in the *Reports* menu is used to select the lines you want printed per page, header options, and the speed at which reports are generated. The *Report viewer* field allows you to indicate what application is used to display reports.

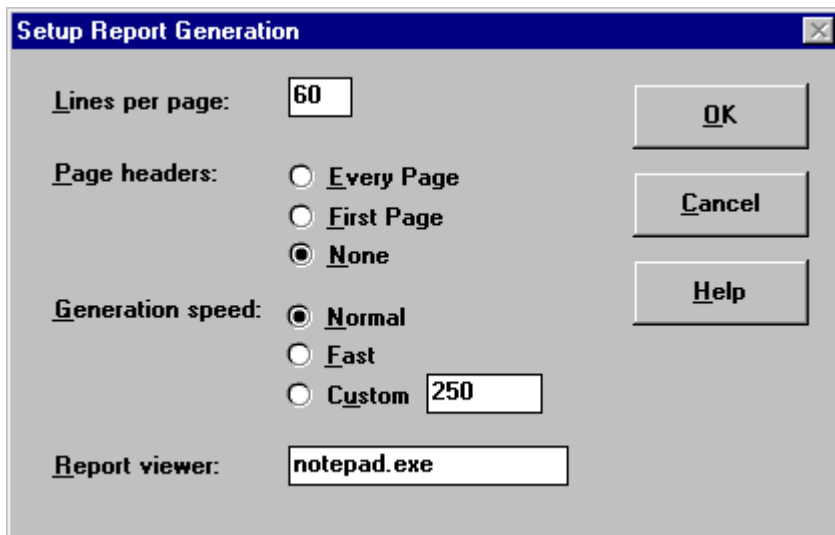


Figure 6-5: Setup Report Generation Window

For the *Generation speed* setting, select one of the following options:

- ❑ Select **Normal** if MAINT is running on the same computer as the *PathFinder* engine.
- ❑ Select **Fast** if MAINT is running on a separate computer.
- ❑ Select **Custom** and enter a value only if instructed to do so by Vodavi Technical Support.

By default, the *Notepad* application is used to view reports. If you want to use a different viewer, specify it in the *Report viewer* field, along with the complete path.

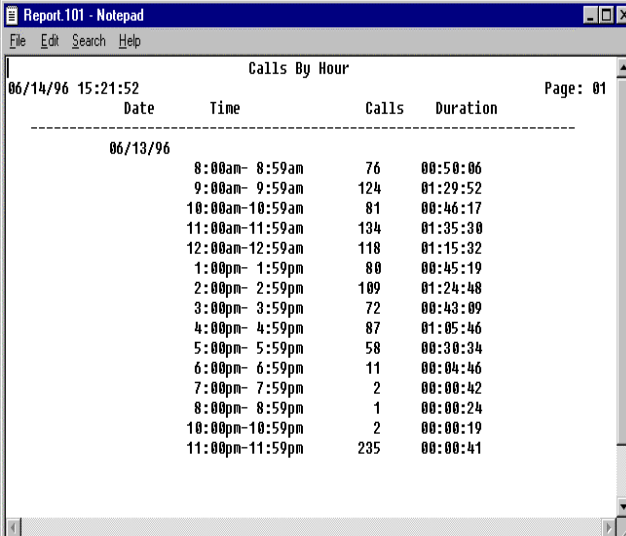
Activity Reports

The MAINT application allows you to configure *PathFinder*. This chapter describes the **Activity** reports functions available through the *Reports* menu in MAINT.

Activity reports reflect *PathFinder* use. Data for the reports are obtained from the *PathFinder* system logs.

Usage

The *Usage* report displays call traffic information.



Date	Time	Calls	Duration
06/13/96	8:00am- 8:59am	76	00:50:06
	9:00am- 9:59am	124	01:29:52
	10:00am-10:59am	81	00:46:17
	11:00am-11:59am	134	01:35:30
	12:00am-12:59am	118	01:15:32
	1:00pm- 1:59pm	80	00:45:19
	2:00pm- 2:59pm	109	01:24:48
	3:00pm- 3:59pm	72	00:43:09
	4:00pm- 4:59pm	87	01:05:46
	5:00pm- 5:59pm	58	00:30:34
	6:00pm- 6:59pm	11	00:04:46
	7:00pm- 7:59pm	2	00:00:42
	8:00pm- 8:59pm	1	00:00:24
	10:00pm-10:59pm	2	00:00:19
	11:00pm-11:59pm	235	00:00:41

Figure 6-6: Usage Report Example

Data

The data are sorted by date and time (hour) and display the total number of calls (inbound and outbound) as well as the combined duration of all calls.

Use

This report demonstrates when *PathFinder* is the most and least active. Its uses include:

- ❑ Determining staffing requirements
- ❑ Determining volume of after-hours calls

Mailbox Usage

The *Mailbox Usage* report provides the log lines related to mailbox activity. The report, sorted by date, tracks each time the mailbox was accessed, the length of the message left, and the number of times that the owner accessed the mailbox.

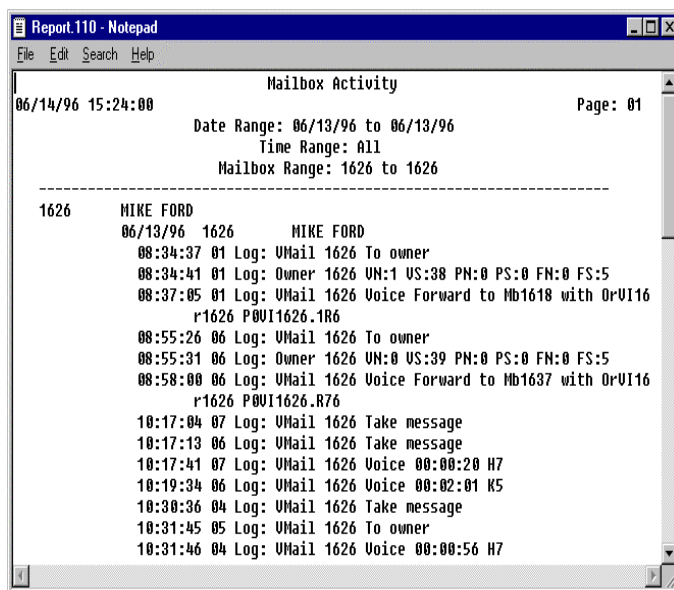


Figure 6-7: Mailbox Usage Report Example

Data

The report, sorted by date, tracks the number of occurrences (counts) and total durations for several mailbox statistics for each mailbox, including the following:

- ☐ Mailbox number and name of mailbox owner
- ☐ Line call came in on
- ☐ Time of mailbox entry
- ☐ Number of messages retrieved (MAINT)
- ☐ Duration between the caller's initial connection to *PathFinder* and subsequent hang-up after leaving a message or time required for mailbox owner to retrieve messages
- ☐ Message Length (elapsed time of recording)
- ☐ Number of messages recorded (Msg Left)
- ☐ Out-dial/Notification events
- ☐ Total Trunk Access

Use

A review of the Mailbox Usage report reveals the amount of activity of each mailbox on *PathFinder*. Owners of mailboxes with *low activity* may not fully understand how to use *PathFinder* and may need more instruction. On the other hand, when disk space is in short supply, users with *high activity* should be reminded to remove messages.

Take note of the average length of a call. When the average length approaches the maximum message length, the max message length may need to be increased.

This report can also be used in client bill-back situations (like shared tenant environments) executive suites, or hotels. The report can be output to disk, then imported into a billing program.

Extension Usage

The *Extension Usage* report identifies inbound call activity to a specific extension.

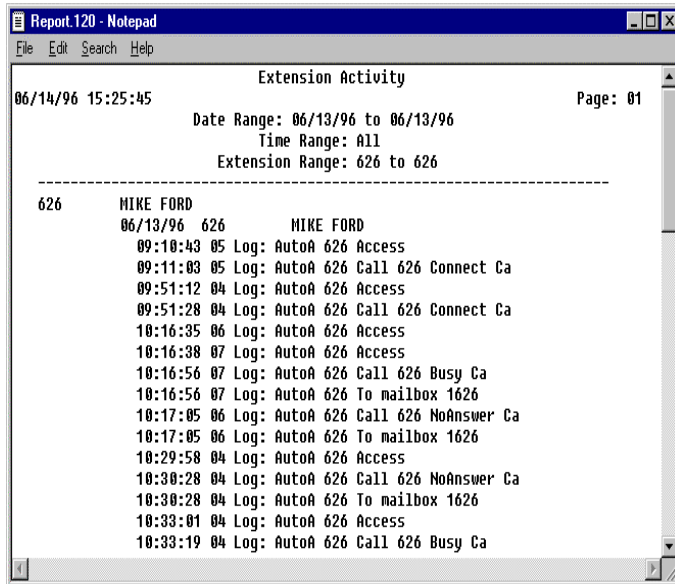


Figure 6-8: Extension Usage Report Example

Data

The report, sorted by date, documents inbound calls and their results. The report documents the time that the call was made as well as its duration. Duration is defined as the elapsed time between the initial connection and the subsequent hang-up from *PathFinder*. In addition, the report documents specific call activity.

Possible data includes:

- Answered -- Call was answered
- No Answer -- Extension did not answer
- Busy -- Extension was busy
- Connect -- Call was connected
- No Ring Back -- Extension did not respond
- Blind Transfer -- Call transfer type

The Extension Usage report describes the results of a call transfer initiated by *PathFinder*. The call can either be connected or dropped. A dropped call (either a busy or unanswered extension) may route to a mailbox, operator, or menu.

Use

A review of the Extension Usage report can help with the following:

- ☐ Scheduling agents or operators more effectively
- ☐ Determining a need for additional phone lines
- ☐ Identifying subscribers who miss a large number of calls

Menu Activity

The *Menu Activity* report identifies user traffic within menus, indicating what information callers are most interested in by the number of times specific menus are accessed.

This can help determine a menu's usefulness and whether the number of channels that allow access to it are sufficient to support the traffic.

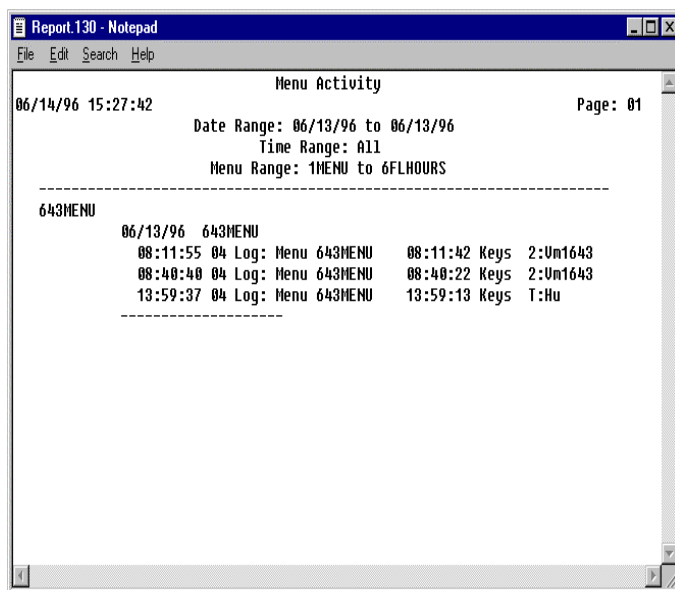


Figure 6-9: Menu Activity Report Example

Data

The *Menu Activity* report documents the following:

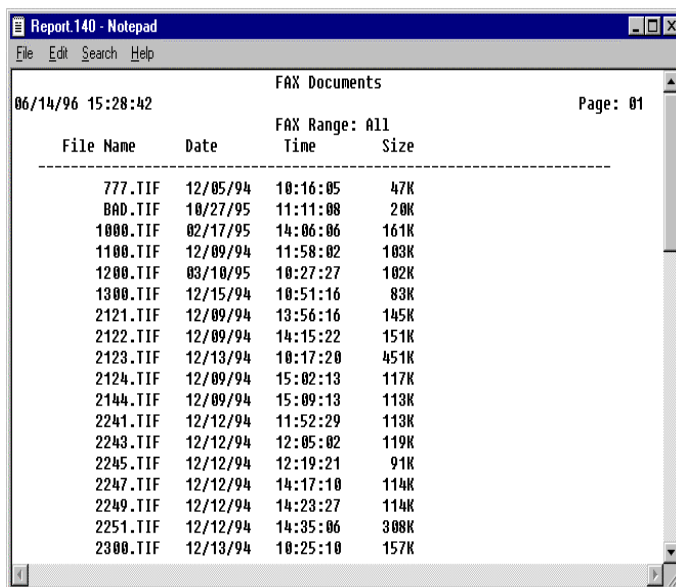
- ❑ **Date:** The selected reporting period
- ❑ **Menu:** The selected menu that is the subject of the report
- ❑ **Time:** Time of day that the menu was accessed
- ❑ **Key Pressed:** The caller's key selection while in the menu

Use

This information may be useful to others besides the system administrator. For example, with the following menu: "Press 1 for information on product X; press 2 for information on product Y . . .", the sales manager may be interested in the number of requests for each option. The Menu Activity report includes the total number of requests for each menu key.

Fax Documents

If your *PathFinder* implementation has the optional fax support module installed and you have created a Fax-On-Demand application, you may have discovered how confusing it can be keeping track of the fax documents. The *Fax Documents* report handles this chore for you.



FAX Documents				Page: 01
File Name	Date	FAX Range: All Time	Size	
777.TIF	12/05/94	10:16:05	47K	
8AD.TIF	10/27/95	11:11:08	20K	
1000.TIF	02/17/95	14:06:06	161K	
1100.TIF	12/09/94	11:58:02	103K	
1200.TIF	03/10/95	10:27:27	102K	
1300.TIF	12/15/94	10:51:16	83K	
2121.TIF	12/09/94	13:56:16	145K	
2122.TIF	12/09/94	14:15:22	151K	
2123.TIF	12/13/94	10:17:20	451K	
2124.TIF	12/09/94	15:02:13	117K	
2144.TIF	12/09/94	15:09:13	113K	
2241.TIF	12/12/94	11:52:29	113K	
2243.TIF	12/12/94	12:05:02	119K	
2245.TIF	12/12/94	12:19:21	91K	
2247.TIF	12/12/94	14:17:10	114K	
2249.TIF	12/12/94	14:23:27	114K	
2251.TIF	12/12/94	14:35:06	308K	
2300.TIF	12/13/94	10:25:10	157K	

Figure 6-10: Fax Documents Report Example

Data

The *Fax Documents* report provides the following information:

- ☐ List of all fax documents on *PathFinder*
- ☐ Date each was created
- ☐ Time each was created
- ☐ File size

Use

This information can be used by the system administrator to keep track of all fax documents currently on *PathFinder*. This can be helpful in maintaining a Fax-On-Demand application.

Notification Usage

The *Notification Usage* report indicates the number of times a mailbox was notified.

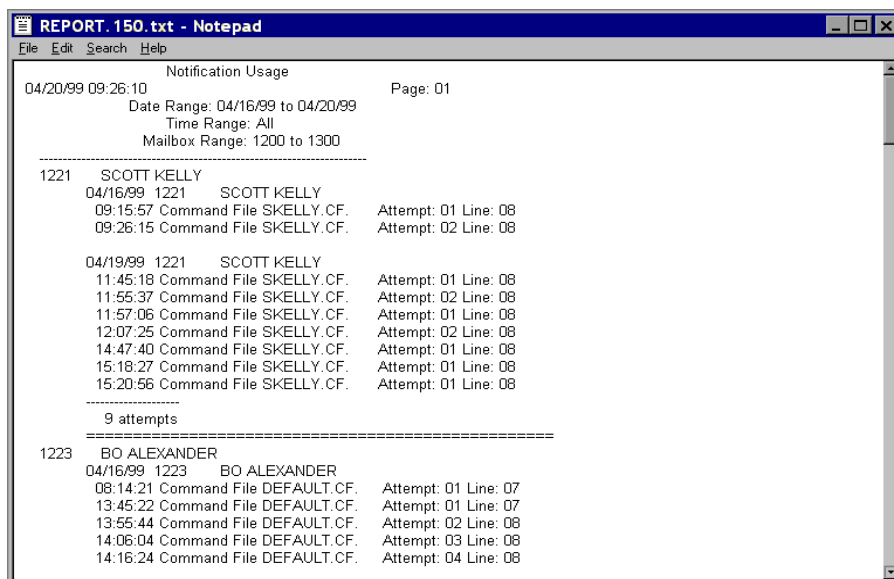


Figure 6-11: Notification Usage Report Example

Data

The *Notification Activity* report provides the following information:

- Date -- The selected reporting period
- Mailbox -- The selected mailbox for the report
- Time -- Time of day that the notification was executed
- Attempt -- Attempt number of notification
- Line -- Line number where the notification went out

Use

This information can be used to determine if notifications are being executed in a timely fashion.

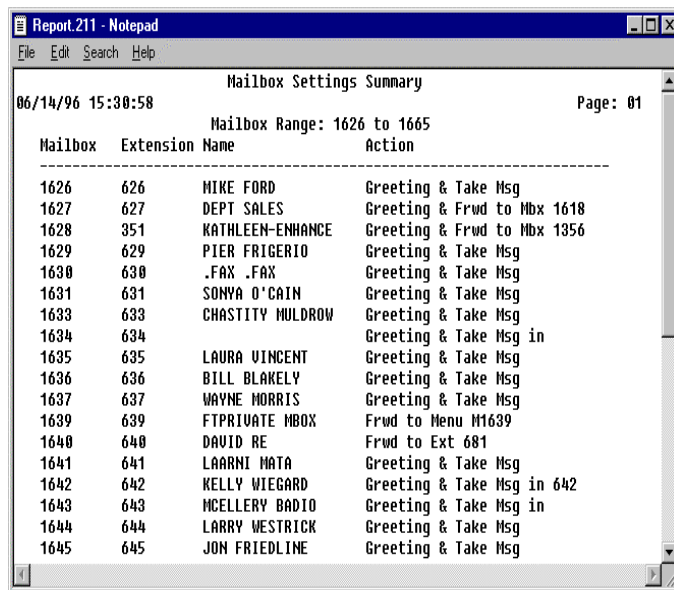
Setting Reports

The MAINT application allows you to configure *PathFinder*. This section describes the **Settings** reports functions available through the *Reports* menu in MAINT.

Settings reports identify various *PathFinder* settings that were entered during configuration. Information is available for mailboxes, extensions, and menus.

Mailbox Settings Summary

The *Mailbox Settings Summary* report summarizes the configuration of each mailbox in *PathFinder*.



Mailbox	Extension	Name	Action
1626	626	MIKE FORD	Greeting & Take Msg
1627	627	DEPT SALES	Greeting & Frwd to Mbx 1618
1628	351	KATHLEEN-ENHANCE	Greeting & Frwd to Mbx 1356
1629	629	PIER FRIGERIO	Greeting & Take Msg
1630	630	.FAX .FAX	Greeting & Take Msg
1631	631	SONYA O'CAIN	Greeting & Take Msg
1633	633	CHASTITY MULBROW	Greeting & Take Msg
1634	634		Greeting & Take Msg in
1635	635	LAURA VINCENT	Greeting & Take Msg
1636	636	BILL BLAKELY	Greeting & Take Msg
1637	637	WAYNE MORRIS	Greeting & Take Msg
1639	639	FTPRIVATE MBOX	Frwd to Menu M1639
1640	640	DAVID RE	Frwd to Ext 681
1641	641	LAARNI MATA	Greeting & Take Msg
1642	642	KELLY WIEGARD	Greeting & Take Msg in 642
1643	643	MCCELLERY BADIO	Greeting & Take Msg in
1644	644	LARRY WESTRICK	Greeting & Take Msg
1645	645	JON FRIEDLINE	Greeting & Take Msg

Figure 6-12: Mailbox Settings Summary Report Example

Data

This report presents, for each mailbox, the following data:

- ☐ Mailbox number
- ☐ Associated extension number
- ☐ Mailbox owner's name
- ☐ Mailbox state

Use

This information can be used to keep track of all mailboxes on *PathFinder*. This can be helpful in maintaining mailboxes in a dynamic work environment.

Mailbox Settings Detail

The *Mailbox Settings Detail* report provides an in-depth review of the configuration of each mailbox in *PathFinder*.

Mailbox	Extension	Name	Action
1626	626	MIKE FORD COS: COSMF Notify: Immediate at 626	Greeting & Take Msg
1627	627	DEPT SALES COS: COS00 Notify: OFF	Greeting & Frwd to Mbx 1618
1628	351	KATHLEEN-ENHANCE COS: COS01 Notify: Immediate, Pager at 708-6626	Greeting & Frwd to Mbx 1356
1629	629	PIER FRIGERIO COS: COS0N Notify: Immediate, Pager at 248-7027	Greeting & Take Msg
1630	630	.FAX .FAX COS: COS00	Greeting & Take Msg

Figure 6-13: Mailbox Settings Detail Report Example

Data

This report provides the following data:

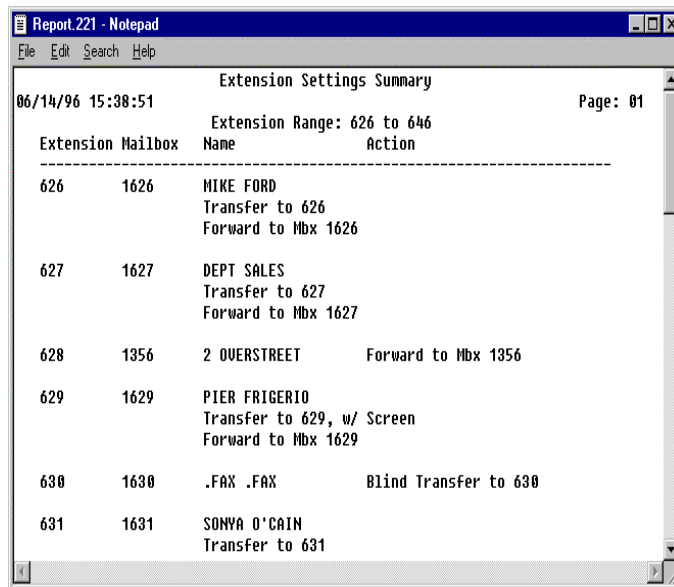
- ☐ Mailbox number
- ☐ Associated extension number
- ☐ Mailbox owner's name
- ☐ Mailbox state
- ☐ Class of service for which the mailbox is a member
- ☐ Group (Department)
- ☐ Notification state

Use

This information is helpful in resolving problems with mailboxes.

Extension Settings Summary

The *Extension Settings Summary* report summarizes the configuration of each extension in *PathFinder*.



Extension	Mailbox	Name	Action
626	1626	MIKE FORD	Transfer to 626 Forward to Mbx 1626
627	1627	DEPT SALES	Transfer to 627 Forward to Mbx 1627
628	1356	2 OVERSTREET	Forward to Mbx 1356
629	1629	PIER FRIGERIO	Transfer to 629, w/ Screen Forward to Mbx 1629
630	1630	.FAX .FAX	Blind Transfer to 630
631	1631	SONYA O'CAIN	Transfer to 631

Figure 6-14: Extension Settings Summary Report Example

Data

Each extension is defined by the following:

- ☐ Extension owner
- ☐ Associated mailbox number
- ☐ User name
- ☐ Transfer options
- ☐ Action options

Use

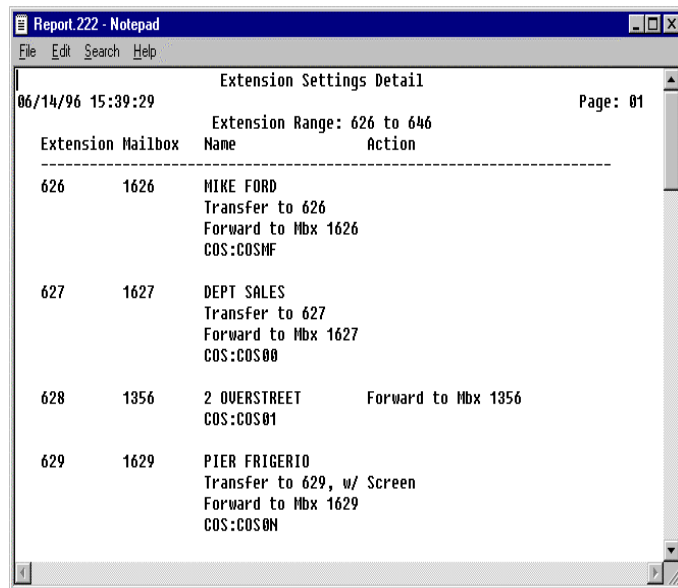
This information is helpful in resolving problems with extensions, such as transfer and forwarding problems.

Extension Settings Detail

The *Extension Settings Detail* report provides more detailed information about each extension in *PathFinder*.

Data

In addition to the information contained in the *Extension Settings Summary* report, the *Extension Settings Detail* report provides the class of service assigned to the extension.



Extension Settings Detail			
06/14/96 15:39:29			
Extension Range: 626 to 646			
Extension	Mailbox	Name	Action
626	1626	MIKE FORD	
		Transfer to 626	
		Forward to Mbx 1626	
		COS:COSMF	
627	1627	DEPT SALES	
		Transfer to 627	
		Forward to Mbx 1627	
		COS:COS00	
628	1356	2 OVERSTREET	Forward to Mbx 1356
		COS:COS01	
629	1629	PIER FRIGERIO	
		Transfer to 629, w/ Screen	
		Forward to Mbx 1629	
		COS:COS0N	

Figure 6-15: Extension Settings Detail Report Example

Use

This information is helpful in resolving problems with extensions, such as transfer and forwarding problems.

Class of Service Settings

You can run a report for details on each defined class of service.

Data

The *Class of Service Settings* report presents the following information:

- ❑ The class of service name and description
- ❑ General settings
- ❑ Voice mail and Auto-Attendant settings, including notification settings

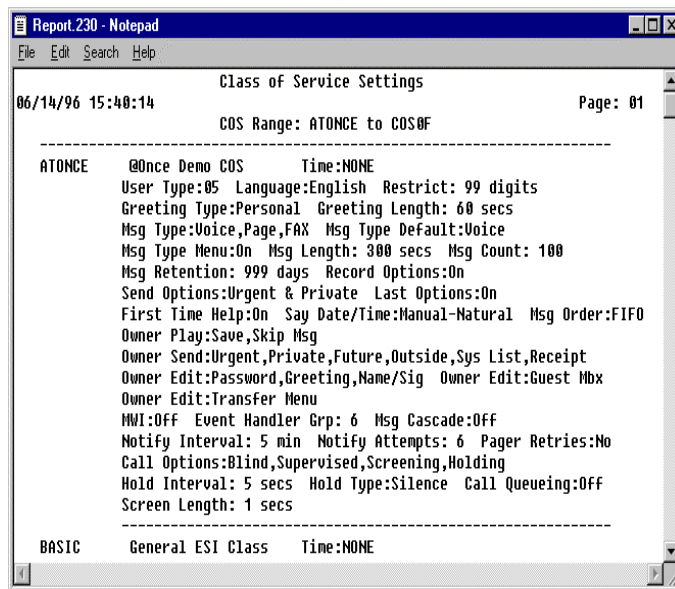


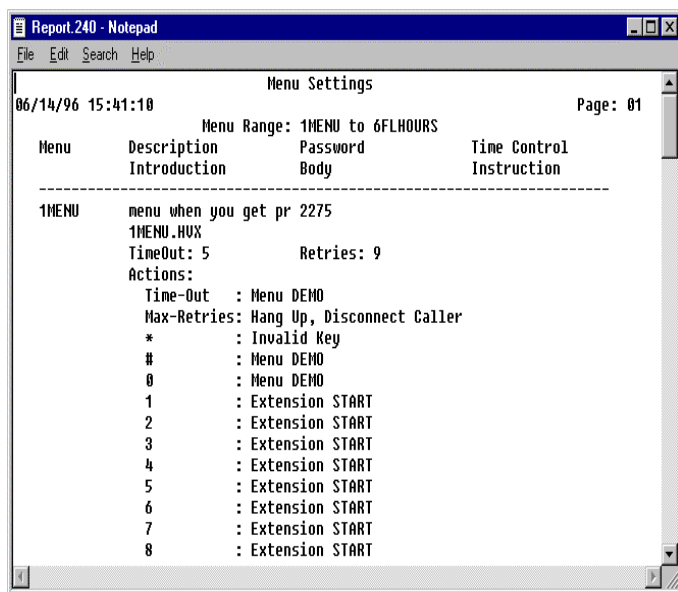
Figure 6-16: Class of Service Settings Report Example

Use

Use the COS report to review and maintain class of service options.

Menu Settings

The *Menu Settings* report provides a complete description of each menu and the action programmed for each key.



Menu	Description	Password	Time Control
	Introduction	Body	Instruction
1MENU	menu when you get pr 2275		
	1MENU.HVX		
	TimeOut: 5	Retries: 9	
	Actions:		
	Time-Out	: Menu DEMO	
	Max-Retries:	Hang Up, Disconnect Caller	
	*	: Invalid Key	
	#	: Menu DEMO	
	0	: Menu DEMO	
	1	: Extension START	
	2	: Extension START	
	3	: Extension START	
	4	: Extension START	
	5	: Extension START	
	6	: Extension START	
	7	: Extension START	
	8	: Extension START	

Figure 6-17: Menu Settings Report Example

Data

The following information is presented for each menu:

- ☐ Menu name
- ☐ Key actions: The action assigned to each key on the telephone keypad (refer to “Key Action Definitions” on page 5-90 for more information)

Use

The purpose of this report is to describe all of the menu settings in a simple and easy format. You can easily determine how the key actions of your menus are configured.

Time Control Settings

The *Time Control Settings* report lists options for the selected time controls.

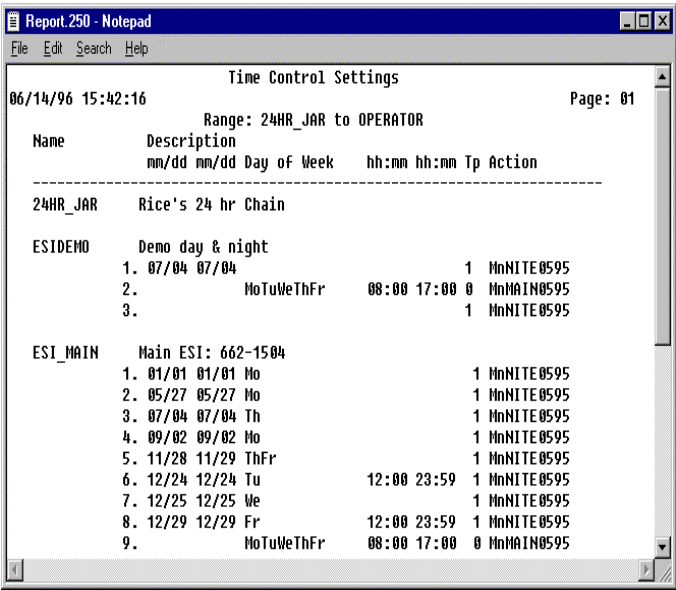


Figure 6-18: Time Control Settings Report Example

Data

This report gives information on the following data:

- ☐ Time Control name
- ☐ Description
- ☐ Date
- ☐ Day
- ☐ Time
- ☐ Action

Use

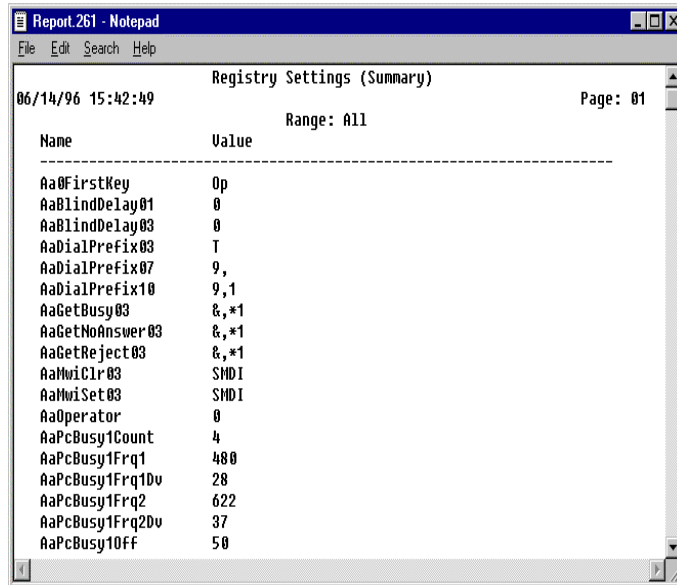
Use this report to review the various time control settings. It can be helpful in planning new time controls and maintaining those currently on *PathFinder*.

Registry Settings Summary

The *Registry Settings Summary* report identifies the various registry settings.

Data

This report provides a system-wide overview of current Registry settings.



Registry Settings (Summary)	
06/14/96 15:42:49	
Page: 01	
Range: All	
Name	Value
AaBFIRSTKey	Op
AaB1indDelay01	0
AaB1indDelay03	0
AaDialPrefix03	T
AaDialPrefix07	9,
AaDialPrefix10	9,1
AaGetBusy03	&,*1
AaGetNoAnswer03	&,*1
AaGetReject03	&,*1
AaHwiClr03	SMDI
AaHwiSet03	SMDI
AaOperator	0
AaPcBusy1Count	4
AaPcBusy1Frq1	480
AaPcBusy1Frq1Du	28
AaPcBusy1Frq2	622
AaPcBusy1Frq2Du	37
AaPcBusy10FF	50

Figure 6-19: Registry Settings (Summary) Report Example

Use

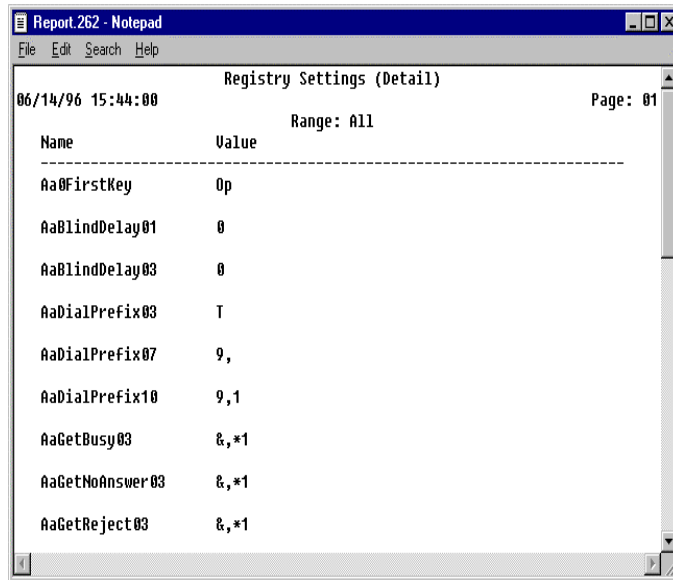
This is a comprehensive report that includes all system settings. As such, it is a powerful troubleshooting and supervisory tool for maintaining *PathFinder*.

Registry Settings Detail

If you need more information than what is included on the *Registry Settings Summary* report, you can run a *Registry Settings Detail* report.

Data

The *Registry Settings Detail* report provides the same information as the *Registry Settings Summary* report, but also includes an explanation of each setting, default values, and the type of registry variable.



Name	Value
Aa0FirstKey	Op
AaBlindDelay01	0
AaBlindDelay03	0
AaDialPrefix03	T
AaDialPrefix07	9,
AaDialPrefix10	9,1
AaGetBusy03	&,*1
AaGetNoAnswer03	&,*1
AaGetReject03	&,*1

Figure 6-20: Registry Settings (Detail) Report Example

Use

This is a comprehensive report that not only includes all system settings, but a description of each. As such, it is a powerful troubleshooting and supervisory tool for maintaining *PathFinder*.

System Distribution Lists

The *System Distribution Lists* report provides a listing of each system distribution list used on *PathFinder*.

List Number	Member	Description
222	1621	TECH SUPPORT
	1623	SCOTT KELLY
		BO ALEXANDER
222	2 members.	
333	1620	
	222	LINK TO OTHER LIST
333	2 members.	
850	1621	TEST FOR HELLO5.0!
	1667	SCOTTS MAILBOX
	3600	TIGERS MAILBOX
		FEREYDOUNS MAILBOX

Figure 6-21: System Distribution Lists Report Example

Data

The *System Distribution List* report contains the following data:

- ☐ List Number
- ☐ Members' extension numbers
- ☐ Members' names

Use

This is a comprehensive report that lists all current system lists. As such, it is a powerful evaluation and supervisory tool for maintaining *PathFinder*.

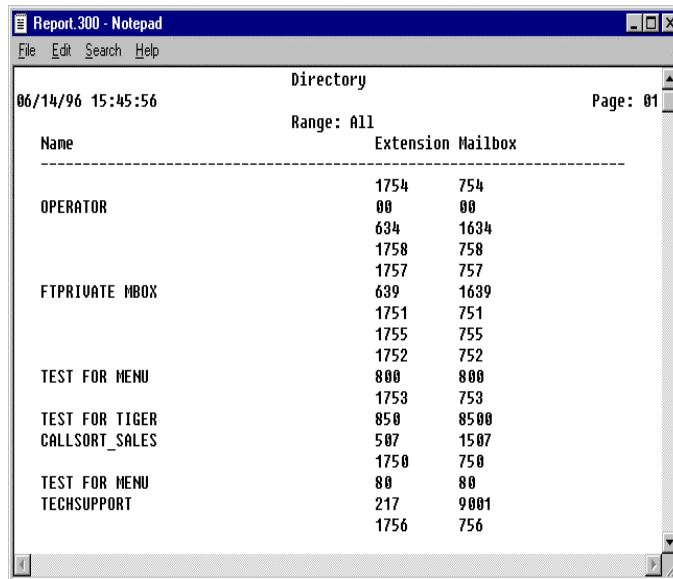
Directory Reports

The MAINT application allows you to configure *PathFinder*. This section describes the **Directory** reports function available through the *Reports* menu in MAINT.

There is only one directory report. It gives a listing of all subscribers with their first name, last name, extension number and mailbox number.

Directory Report

Directory reports can be generated for the entire directory, or specific name ranges can be designated.



Name	Extension	Mailbox
OPERATOR	1754	754
	00	00
	634	1634
	1758	758
	1757	757
FTPRIVATE MBOX	639	1639
	1751	751
	1755	755
	1752	752
TEST FOR MENU	800	800
	1753	753
TEST FOR TIGER	850	8500
CALLSORT_SALES	507	1507
	1750	750
TEST FOR MENU	80	80
TECHSUPPORT	217	9001
	1756	756

Figure 6-22: Directory Report Example

Data

The *Directory* report associates subscribers with specific mailboxes and extensions.

Use

Print this report regularly and reference it for maintenance. The *Directory* report also can be used to create company telephone lists.

Logs Reports

The MAINT application allows you to configure *PathFinder*. This section describes the **Logs** reports functions available through the *Reports* menu in MAINT.

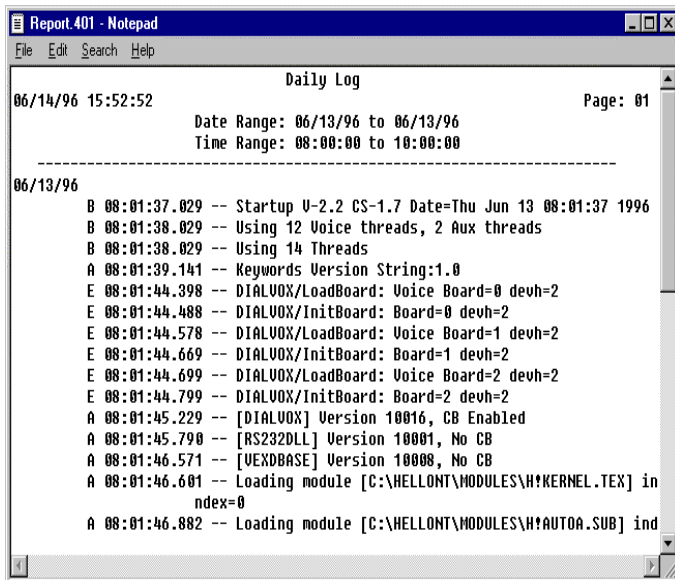
Log reports provide information about *PathFinder* and error messages. Logs are used as diagnostic tools to trace *PathFinder* activity, and are primarily used for debugging and technical support functions.



For more information on Log Files, refer to page [5-6](#).

Daily Log

The *Daily Log* report provides a detailed listing of general *PathFinder* activity.



```

Report.401 - Notepad
File Edit Search Help

                        Daily Log
06/14/96 15:52:52                                Page: 01
                        Date Range: 06/13/96 to 06/13/96
                        Time Range: 08:00:00 to 10:00:00
-----
06/13/96
  B 08:01:37.029 -- Startup U-2.2 CS-1.7 Date=Thu Jun 13 08:01:37 1996
  B 08:01:38.029 -- Using 12 Voice threads, 2 Aux threads
  B 08:01:38.029 -- Using 14 Threads
  A 08:01:39.141 -- Keywords Version String:1.0
  E 08:01:44.398 -- DIALVOX/LoadBoard: Voice Board=0 devh=2
  E 08:01:44.408 -- DIALVOX/InitBoard: Board=0 devh=2
  E 08:01:44.578 -- DIALVOX/LoadBoard: Voice Board=1 devh=2
  E 08:01:44.669 -- DIALVOX/InitBoard: Board=1 devh=2
  E 08:01:44.699 -- DIALVOX/LoadBoard: Voice Board=2 devh=2
  E 08:01:44.799 -- DIALVOX/InitBoard: Board=2 devh=2
  A 08:01:45.229 -- [DIALVOX] Version 10016, CB Enabled
  A 08:01:45.790 -- [RS232DLL] Version 10001, No CB
  A 08:01:46.571 -- [VEXDBASE] Version 10008, No CB
  A 08:01:46.601 -- Loading module [C:\HELLONT\MODULES\H\!KERNEL.TEX] in
                    index=0
  A 08:01:46.882 -- Loading module [C:\HELLONT\MODULES\H\!AUTOA.SUB] ind

```

Figure 6-23: Daily Log Report Example

Data

All entries are listed by time of occurrence and by line number.

Use

Review this report to check on daily *PathFinder* activity. This report should not be confused with the Error Log. There are instances, however, when both are used together for diagnostic purposes.

Maintenance Log

The *Maintenance Log* report tracks all activity within MAINT.

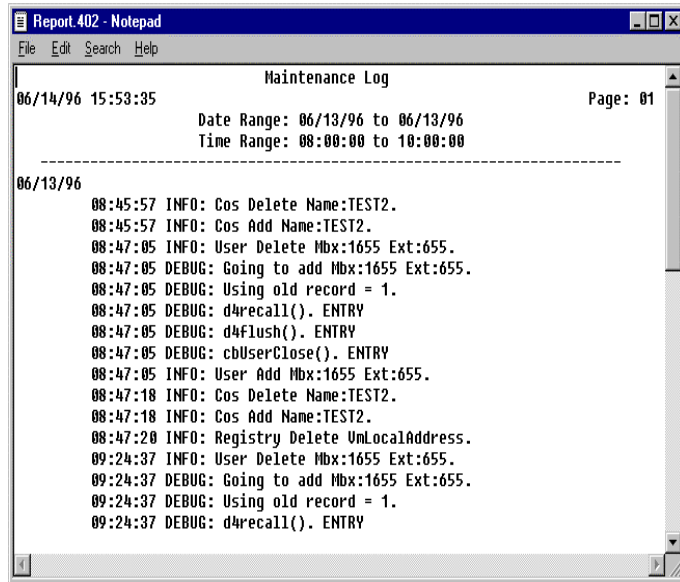


Figure 6-24: Maintenance Log Report Example

Data

Any time a report is run, a mailbox is created, or a menu is modified, a line is added to the Maintenance log.

Use

Review this report to see what changes have been made in MAINT. Each line of the report lists a specific action or activity initiated during a MAINT session. This can be used to track system administration functions and to verify who is accessing MAINT and what they are doing. This can be very helpful in troubleshooting *PathFinder* problems.

Error Log

The *Error Log* report lists any error messages resulting from the operation of *PathFinder*.

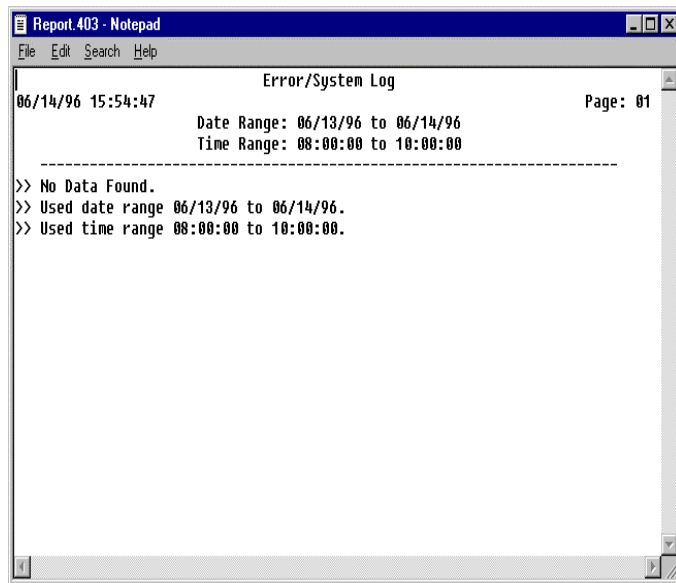


Figure 6-25: Error/System Log Report Example

Data

Both hardware and software malfunctions are reported.

Use

Review this report to check on errors in *PathFinder* activity. Each line of the report specifies a specific error condition that has occurred. Each error condition is listed by time of occurrence.

Messages Reports

The MAINT application allows you to configure *PathFinder*. This section describes the **Messages** reports functions available through the *Reports* menu in MAINT.

Message reports provide the system administrator with a means to determine the current status of messages in *PathFinder* mailboxes.

Message Summary

The *Message Summary* report summarizes various status conditions for *PathFinder* mailboxes.

Report.501 - Notepad

File Edit Search Help

Message Summary

06/14/96 15:55:32

Page: 01

Mailbox Range: 1626 to 1665

Mailbox	Msg Type	New	Saved	Size

1626	MIKE FORD			
	Voice	: 0 New,	40 Saved =	2.6 meg, 895.7 sec
	FAX	: 0 New,	5 Saved =	0.0 meg, 0.0 sec
1629	PIER FRIGERIO			
	Voice	: 0 New,	15 Saved =	1.4 meg, 470.5 sec
	Page	: 0 New,	2 Saved =	0.0 meg, 0.0 sec
	FAX	: 0 New,	2 Saved =	0.0 meg, 0.0 sec
1631	SONYA O'CAIN			
	Voice	: 21 New,	2 Saved =	4.1 meg, 1435.9 sec
1633	CHASTITY MULBROW			
	Voice	: 1 New,	2 Saved =	0.7 meg, 241.7 sec

Figure 6-26: Message Summary Report Example

Data

The following fields are displayed with the message summary report:

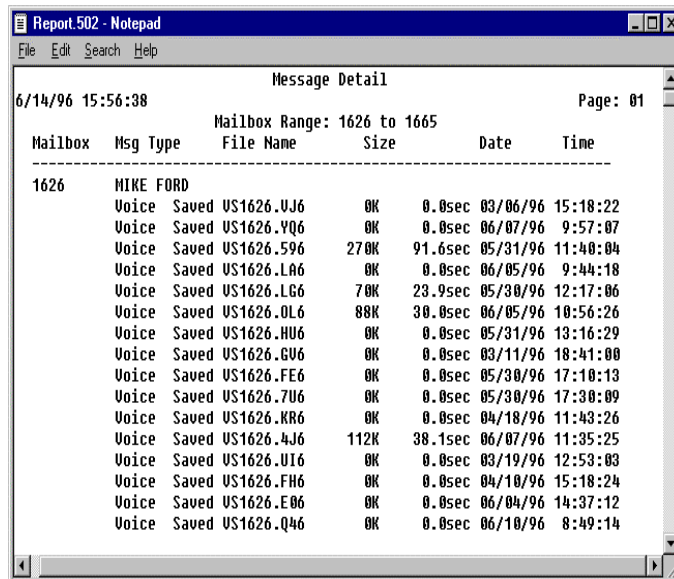
- Mailbox -- Mailbox owner name and mailbox number
- New -- Total number of new messages
- Saved -- Total number of saved messages
- Time -- Total time for all messages
- Disk Space Used -- Total occupied disk space per owner

Use

This report shows the total messages stored on the hard drive for each mailbox. It can help determine if messages are being stored too long or if *PathFinder* resources are being monopolized by any one user.

Message Detail

The *Message Detail* report allows the system administrator to select a mailbox and view its current status.



Report 502 - Notepad

File Edit Search Help

Message Detail

6/14/96 15:56:38 Page: 01

Mailbox Range: 1626 to 1665

Mailbox	Msg Type	File Name	Size	Date	Time
1626	MIKE FORD				
	Voice	Saved US1626.VJ6	0K	03/06/96	15:18:22
	Voice	Saved US1626.YQ6	0K	06/07/96	9:57:07
	Voice	Saved US1626.596	270K	91.6sec 05/31/96	11:40:04
	Voice	Saved US1626.LA6	0K	06/05/96	9:44:18
	Voice	Saved US1626.LG6	70K	23.9sec 05/30/96	12:17:06
	Voice	Saved US1626.OL6	88K	30.0sec 06/05/96	10:56:26
	Voice	Saved US1626.HU6	0K	05/31/96	13:16:29
	Voice	Saved US1626.GU6	0K	03/11/96	18:41:00
	Voice	Saved US1626.FE6	0K	05/30/96	17:10:13
	Voice	Saved US1626.7U6	0K	05/30/96	17:30:09
	Voice	Saved US1626.KR6	0K	04/18/96	11:43:26
	Voice	Saved US1626.4J6	112K	38.1sec 06/07/96	11:35:25
	Voice	Saved US1626.U16	0K	03/19/96	12:53:03
	Voice	Saved US1626.FH6	0K	04/10/96	15:18:24
	Voice	Saved US1626.E06	0K	06/04/96	14:37:12
	Voice	Saved US1626.Q46	0K	06/10/96	8:49:14

Figure 6-27: Message Detail Report Example

Data

The following fields are displayed within this report:

- ❑ **Mailbox:** Mailbox owner name and mailbox number
- ❑ **New:** N for new message
- ❑ **Saved:** S for saved message
- ❑ **From Mbx:** Mailbox message was sent from
- ❑ **Size:** Message size in seconds
- ❑ **Date/Time:** Date and time message left
- ❑ **File:** File name of the message

Use

This report shows all messages that are stored on the hard drive. It can help determine if messages are being stored too long or if *PathFinder* resources are being monopolized by any user.

Greetings & Signatures

The *Greetings & Signatures* report allows the system administrator to determine the total amount of greetings & signatures recorded by mailbox holders. Each mailbox holder can have multiple greetings or signatures recorded.

Use

This report is another tool that the system administrator has to analyze and control proper distribution of *PathFinder* resources.

Customized Reports

Customized reports provide flexibility to isolate certain assurances within the log and provide detail information. For instance, using customized reporting, the system administrator can report on all “track messages” log lines and actually display the life of a message as it moves through the system. In addition, some IVR systems can use customized reporting to show information about the IVR that is not available through standard reports.

Use

This report is another tool that the system administrator has to analyze and control proper distribution of *PathFinder* resources.

7 Boom Box and Monitor Applications

The *Boom Box* application allows you to create and edit voice prompt files used by *PathFinder*. This chapter provides an introduction to this application and details on its installation as well as an introduction to the prompts that can be created and used in conjunction with the *Boom Box* application.

Boom Box Application

Boom Box can be used on any machine that has either Dialogic® voice ports configured **or** a WAV device with speakers and a microphone.

Boom Box is usually used on the same PC where *PathFinder* is running. However, *Boom Box* can be used on another PC that has another Dialogic voice port or a WAV device, and then the prompt file(s) can be copied to *PathFinder*.

Boom Box can work on the following:

- ❑ Standalone single prompt files (VOX), or
- ❑ Multiple voice prompts combined into one voice prompt file (VOX) with a matching index file (VDX).

The VOX files used by *PathFinder* are in the Dialogic 8-bit ADPCM format at 24khz. *Boom Box* can produce these same ADPCM files and can also produce WAV files.

Requirements

Boom Box requires the following:

- ❑ Windows NT® 4.0 (Service Pack 4)
- ❑ A Dialogic card, or a WAV device with microphone and speakers

Installation

Boom Box is automatically installed when running the install *PathFinder* software.

After installing your *PathFinder* software, you can access the *Boom Box* application by selecting from the *Start* menu the following path: Programs > *PathFinder* Voice Processing > *Boom Box*.

Boom Box's main window is shown below:

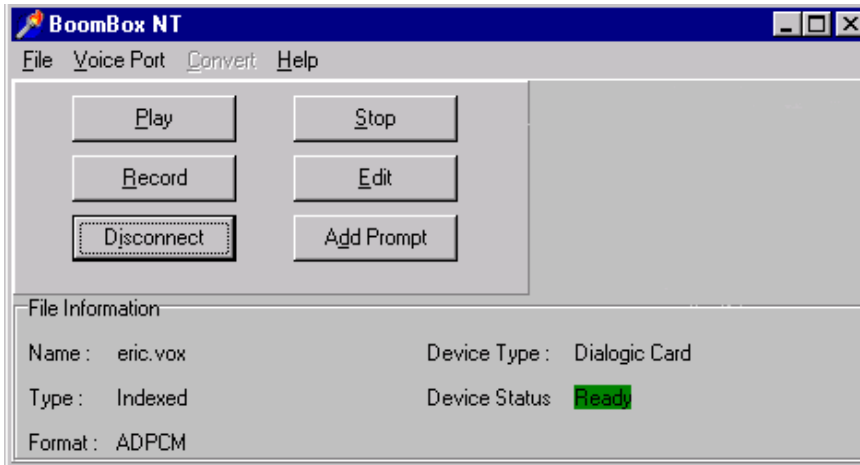


Figure 7-1: *Boom Box* Main Window



*It is recommended that the **PathFinder** voice engine be shut down to record voice prompts using Boom Box. If you would like to record prompt files while the **PathFinder** engine is running, use the Record Prompts option on a menu. Refer to “Menu Settings” on page 5-83 for more information.*

Menu Bar Options

The *Boom Box* application has four menus available in the menu bar.

- ☐ File
- ☐ Voice Port
- ☐ Convert
- ☐ Help

File Menu

The *File* menu allows you to create, access, and save *Boom Box* files as well as exit the *Boom Box* application.

File > New

The File > New option allows you to create either indexed or non-indexed prompt files. If you create a new indexed file, you can only create VOX file types.



You cannot change a non-indexed prompt file into an indexed prompt file.

File > Open

The File > Open option allows you to open prompt files. It does not matter if the files are indexed or not-- *Boom Box* determines that for you.

File > Save

This option saves the current prompt file that you are working on.

File > Save As

This option saves the current file you are working on as another file.



The File > Save As option cannot save VOX files as WAV files or WAV files as VOX files.

Voice Port Menu

The Voice Port menu allows you to manipulate lines and ports.



The Voice Port menu can only be used when you're playing VOX files. It is used only through the Dialogic voice port device, not through the WAV device.

Voice Port > Answer

With this option, call into the phone lines and select the extension you want to reach. Then select **Answer** to answer the phone.

Voice Port > Disconnect

This option disconnects the phone line.

Voice Port > Change Port

This allows you to set the port (phone line) that you want *Boom Box* to answer.



*Do not set the port to a port being used by **PathFinder** while **PathFinder** is running.*

The *Set Port* window is shown below:

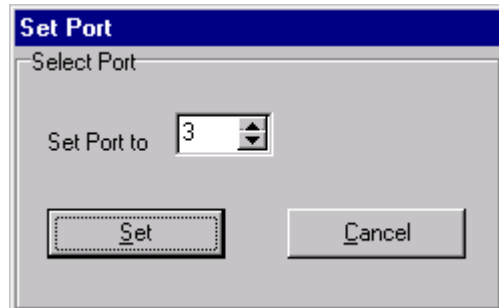


Figure 7-2: Set Port Window

Convert Menu

The *Convert* menu allows you to convert WAV files to VOX files. The *Convert* menu can only be accessed when you have a WAV file open.

Help Menu

The *Help* menu allows you to access the Help files for *Boom Box*. These files can be accessed at any time.

Buttons

The following buttons can be accessed from the main *Boom Box* window:

Table 7-1: *Boom Box* Window Buttons

Button	Description
Play	Plays the current file (non-indexed) or prompt (indexed).
Record	Records the current file (non-indexed) or prompt (indexed).
Stop	Stops playing or recording.
Edit	Clicking the Edit button allows you to edit any type of prompt. Refer to "Edit Options" on page 7-5 for more information on these options.
Disconnect	Disconnects the phone line. This is only available if working with a VOX file.
Add Prompt	Clicking the Add Prompt button allows you to add a prompt. Refer to "Add Prompt" on page 7-7 for more information on this option.

Edit Options

Clicking the **Edit** button from the main *Boom Box* window allows you to edit any type of prompt.

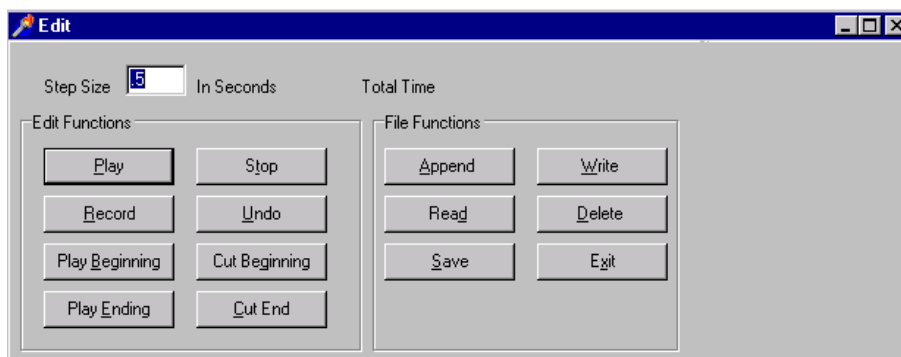


Figure 7-3: *Boom Box* Edit Window

Edit Functions Buttons

The following buttons are available in the edit functions area in the *Edit* window.

Table 7-2: Edit Functions Buttons

Button	Definition
Play	Plays the current file (non-indexed) or prompt (indexed).
Stop	Stops recording or playing.
Record	Records the current file (non-indexed) or prompt (indexed).
Undo	Undoes most of the changes made to the current file or prompt. If you make a change that cannot be undone, a prompt displays saying that you cannot undo this change unless you do not save.
Play Beginning	Plays the first (x) seconds of current file (non-indexed) or prompt (indexed), where (x) is the number in the text box.
Play Ending	Plays the last (x) seconds of current file (non-indexed) or prompt (indexed), where (x) is the number in the text box.
Cut Beginning	Cuts the first (x) seconds of current file (non-indexed) or prompt (indexed), where (x) is the number in the text box.
Cut End	Cuts the last (x) seconds of current file (non-indexed) or prompt (indexed), where (x) is the number in the text box.



The Step Size field at the top left of the screen determines the number of seconds of the file or prompt to play or cut from the beginning or end. You can set the step size to larger or smaller values depending on how much you need to play or cut from the prompt.

File Functions Buttons

The following buttons are available in the file functions area in the *Edit* window.

Table 7-3: File Functions Buttons

Button	Definition
Append	This appends a non-indexed prompt file to the current file or prompt.
Write	This writes the current prompt to a non-indexed prompt file. This does not save the currently opened file.
Read	This reads in a non-indexed prompt file on top of the current file or prompt.
Delete	This option deletes a prompt from an indexed file.
Save	This saves the changes made to the current file or prompt.
Exit	Exits the Edit window and returns you to the main <i>Boom Box</i> window.

Add Prompt

Clicking the Add Prompt button from the main *Boom Box* window allows you to add a new prompt to the current file. This option is only visible if working on an indexed prompt. The *Add Prompt* window is shown below:

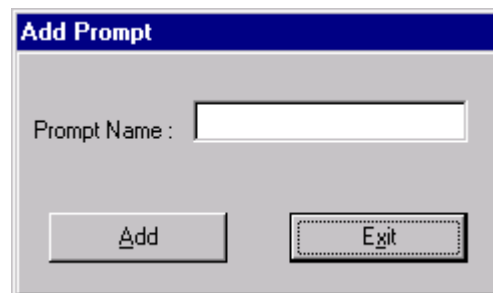


Figure 7-4: Add Prompt Window

File Information

At the bottom of the main menu is the file information pane. Please note that you do not type or otherwise enter this information; instead, it automatically displays based on specific information relevant to your file. The five *File Information* fields are as follows.

Name -- The name of the file you are working on.

Type -- Either indexed or non-indexed.

Format -- Either ADPCM for VOX file type or WAV for WAV file type.

Device Type -- Specifies how the file is played or recorded. There are two options:

A sound card if you open a WAV file, or

A Dialogic card if you open a VOX file.

Device Status -- Specifies whether you can play or record (or edit). If this is green, you can play, record, or edit. If it is red, you cannot play, record, or edit. This is green when you answer (VOX) or when you have a sound card. It is red when you first open the VOX file or when you disconnect it.

Troubleshooting

You can carry out Dialogic-based or WAV-based *Boom Box* troubleshooting.

Dialogic-based Troubleshooting:

- ☐ Make sure that the Dialogic voice board is installed correctly.
- ☐ Be sure that the Dialogic voice drivers are correctly configured and started.
- ☐ Make sure the phone extension (or phone through extension simulator) is connected to a voice port. Please note that you cannot plug a phone directly into a dialogic port.
- ☐ Make sure *Boom Box* is configured to use the correct voice port phone extension connected to.

-
- ❑ Make sure *Boom Box* is not using a voice port already in use by *PathFinder* or other Dialogic-based application.

WAV-based Troubleshooting:

- ❑ Be sure that the WAV device is installed correctly.
- ❑ Be sure the speakers are connected correctly, turned on, and are loud enough.
- ❑ Make sure the microphone is installed correctly.

Make sure the microphone gain (sensitivity) is not set too soft or too loud (often an optional setting).

Boom Box System Prompts

The *Boom Box* application allows you to create and edit voice prompt files used by the *PathFinder* voice processing system. In this section, the system prompts that are used with the *Boom Box* application are discussed in detail.

System Prompts

PathFinder uses a group of pre-recorded messages and phrases called voice prompts to communicate with callers. *PathFinder* constructs understandable messages by selecting different prompts and playing them together as a single message. *PathFinder* uses two types of prompts, Indexed and Non-Indexed. Indexed prompts are located in a single indexed file that contains many prompts. Non-Indexed prompts only contain one prompt per file.

All files are stored in the C:\HELLONT\VOX directory unless otherwise noted.

Indexed vs. Non-Indexed Prompts

Non-Indexed prompt files are of type VOX only. Indexed prompts can be either VOX or VDX file pairs.

Non-Indexed Prompts

Many prompts used by the standard *PathFinder* modules, as well as many used by custom IVR modules, are simple non-indexed prompt files. This means there is only one prompt recorded in each VOX file, and there is no index associated with that VOX file. To play the prompt, *PathFinder* simply plays the entire file.

Non-indexed prompts are good for applications in which there are just a few prompts, or in which these prompts may need to be re-recorded while *PathFinder* is in use.

Indexed Prompts

Many prompts used by the standard *PathFinder* modules, as well as some used by custom IVR modules, are stored in indexed prompt files (matching VOX and VDX files). This means there are one or more individual prompts recordings in the VOX file, with named segments in the VDX index file that indicate where each prompt begins and how long it is. To play an indexed prompt segment, *PathFinder* looks up the segment name in the VDX file to get the start location and length, and plays just that portion of the prompt from the VOX file.

Indexed prompt files are good for applications in which there are a large number of prompts and it helps organization on the disk to keep them all together in two files instead of in many. They are also beneficial when the prompts are *not* going to need to be re-recorded while *PathFinder* is in use.

Non-Indexed Prompts

The list below outlines the customizable (non-indexed) prompts that are used in *PathFinder*. All prompts should be located in the VOX directory. You can create a blank prompt (with 1 byte of data) to suppress certain prompts. But more commonly, you would record new information to replace the default prompt.

Replacement Prompts

All prompts below can be recorded using *Boom Box*.

Table 7-4: Non-Indexed (Customizable) Prompts

File Name	Description	Replaces Indexed File . . .	Sample(s)
VOPGPRES.VOX	Preamble prompt that plays in front of a numeric page	H!VO0.VOX: VoPagePreamble	<input type="checkbox"/> "Page message is . . ." <input type="checkbox"/> "You have a message to call . . ."
FXDMND1.VOX	Prompt played before FxInstruct1 or FXDMND2.VOX that can be used to give the caller more information	N/A	<input type="checkbox"/> "You have reached the Vodavi fax-on-demand line. Please note that document 411 is a catalog of available fax documents."
FXDMND2.VOX	Tells callers how many fax prompts they can select	H!FAX0.VOX: FxInstruct1 and FxInstruct2	<input type="checkbox"/> "You will be prompted to select which documents should be faxed. You may select up to X fax documents."
VMINSTR.VOX	Voice mail instructions prompt	H!XX0.VOX: VmInstructions	<input type="checkbox"/> "Enter the mailbox number of the person you are trying to reach. Press zero for the operator. Press the star key for the directory."
VMSYSGR1.VOX	First system greeting. Played if selected in COS	H!XX0.VOX: VmSysGreeting	<input type="checkbox"/> "The person you have tried to reach is not available. Please leave a message after the tone."
VMSYSGR2.VOX	Second system greeting. Played if selected in COS	H!XX0.VOX: VmSysGreeting2	<input type="checkbox"/> "Begin speaking at the tone. When you are finished recording you may hang-up or press any key for more options."
VMRECKEY.VOX	Asks caller to press a key to start recording	H!XX0.VOX: VmRec Key	<input type="checkbox"/> "Press one to start recording."
VMRECOPT.VOX	Record option prompt	H!XX0.VOX: VmRecordOption	<input type="checkbox"/> "To send message, press one; to play, press two; to cancel, press three."
<COS>.PBG	Numeric message begin prompt. Played when mailbox is set to take numeric messages	N/A	<input type="checkbox"/> beep-beep-beep

Table 7-4: Non-Indexed (Customizable) Prompts (Continued)

File Name	Description	Replaces Indexed File . . .	Sample(s)
<COS>.PDN	"Numeric message done" prompt. Prompt played after the caller enters the numeric page	N/A	<input type="checkbox"/> Busy signal or some type of completion tone
<COS>.GRT	COS Greeting. Played if COS is set to play the COS greeting	N/A	<input type="checkbox"/> "You have reached the sales department. Please leave a message after the tone."
<COS>.VI1	COS Voice Insert - played before mailbox name	N/A	<input type="checkbox"/> "You have reached the voice mailbox of . . ."
<COS>.VI2	COS Voice Insert - played after mailbox name	N/A	<input type="checkbox"/> "... Please leave a message after the tone."
<COS>.LOP	COS Last options	H!XX0.VOX: VmLastOptions	<input type="checkbox"/> "Press one to reach another mailbox. Press nine to disconnect."
DIRGETDI.VOX	Prompt asking for lookup digits in directory	H!XX0.VOX: DirGetDigits	<input type="checkbox"/> "Enter the first four characters of the person's last name. For Q press seven. For Z press nine."
AAINSTR.VOX	Auto-Attendant instructions	H!XX0.VOX: AaInstructions	<input type="checkbox"/> "Enter the extension number of the person you are trying to reach. For the company directory press the star key. To reach an operator, press zero."
AAHVCALL.VOX	Prompt announcing that an extension has a call	H!XX0.VOX: AaHaveCall	<input type="checkbox"/> "You have a call."
AAHOLD.0 to AAHOLD.999	Hold files played when the system needs to put a caller on hold and the COS says use hold files	N/A	<input type="checkbox"/> AAHOLD.0: "Please hold. We appreciate your patience . . ." <input type="checkbox"/> AAHOLD.1: "Please continue to hold . . ."
AACALLFO.VOX	Announces that the extension has a call for a particular extension	H!XX0.VOX: AaCallFor	<input type="checkbox"/> "Call for . . ."

Table 7-4: Non-Indexed (Customizable) Prompts (Continued)

File Name	Description	Replaces Indexed File . . .	Sample(s)
AASCNASK.VOX	Prompt asking callers to say their names	H!XX0.VOX: AaScreenAsk	<input type="checkbox"/> "Whom may I say is calling?"
AAXFRMSG.VOX	Prompt telling callers you are going to be transferred	H!XX0.VOX: AaTransfer1 and AaTransfer2	<input type="checkbox"/> "Please hold while I transfer you to . . ."

PathFinder Monitor Application

The *PathFinder* application is run and monitored via a *Monitor* application window. This chapter discusses the *PathFinder Monitor* application, its available options, and its operation.

The *PathFinder Monitor* application is designed to allow the Administrator to view *PathFinder* status and settings. *Monitor* also allows you to connect to local (on the same machine) engines and remote engines via TCP/IP connections.

The Engine is *PathFinder*'s workhorse. The MAINT application defines how the engine operates; the engine receives the incoming telephone calls and performs the actions defined in the MAINT application.

Startup & Orientation

After installing *PathFinder*, run the *Monitor* application to start the voice processing engine. By default, *Monitor* connects to the local voice processing engine.

Running the Monitor Application

Start up the *Monitor* application by selecting from the Start menu Programs > *PathFinder* Voice Processing > *PathFinder*.

Once *PathFinder* is selected, a window similar to the following is displayed:

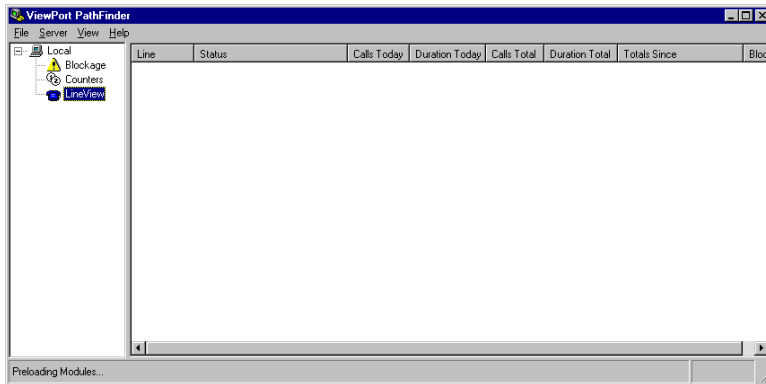


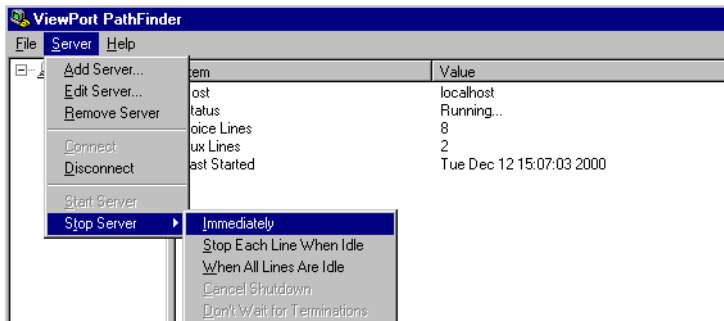
Figure 7-5: Monitor Application Window

Configure Host Information

To configure the host information, select from these options.

Server

Configure Server information in the following window:



- ☐ Add / Edit / Remove Server
- ☐ Connect / Disconnect
- ☐ Start Server

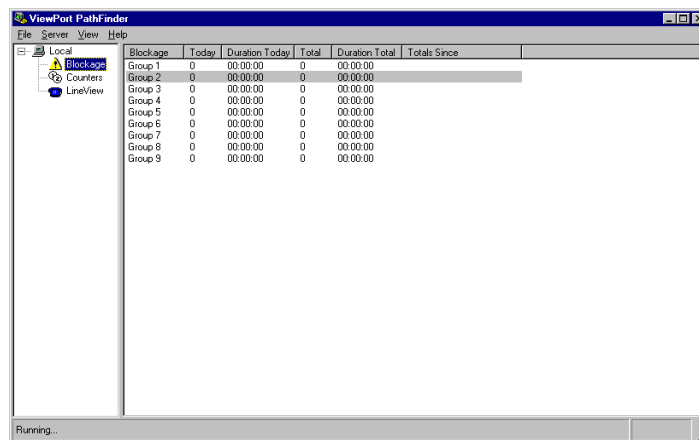
- ❑ Stop Server
 - Immediately
 - Stop Each Line When Idle
 - When All Lines Are Idle
 - Cancel Shutdown
 - Don't Wait for Terminations

Monitor Display Windows

Blockage (Groups)

Displays the number and total time a blockage occurred on the system. Refer to “Setting Up Phone Lines” on page 5-102 for more information.

This window displays duration and counts for system blocks:



Blockage	Today	Duration Today	Total	Duration Total	Totals Since
Group 1	0	00:00:00	0	00:00:00	
Group 2	0	00:00:00	0	00:00:00	
Group 3	0	00:00:00	0	00:00:00	
Group 4	0	00:00:00	0	00:00:00	
Group 5	0	00:00:00	0	00:00:00	
Group 6	0	00:00:00	0	00:00:00	
Group 7	0	00:00:00	0	00:00:00	
Group 8	0	00:00:00	0	00:00:00	
Group 9	0	00:00:00	0	00:00:00	

Figure 7-6: Monitor [Blockage Groups] Window

Counters (Event)

The *Event Counters* window allows you to view *PathFinder* event counters. Refer to “Event Counters” on page 5-60 for more information.

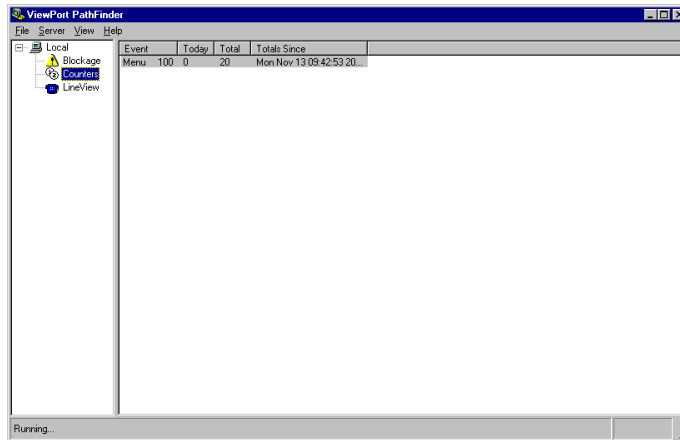


Figure 7-7: Monitor [Event Counters] Window

Line View (Status)

This window allows you to view the real time status of your inbound lines. Auxiliary lines are also displayed. Double-click on (or right-click for a menu) any of the line icons to view details for that line.

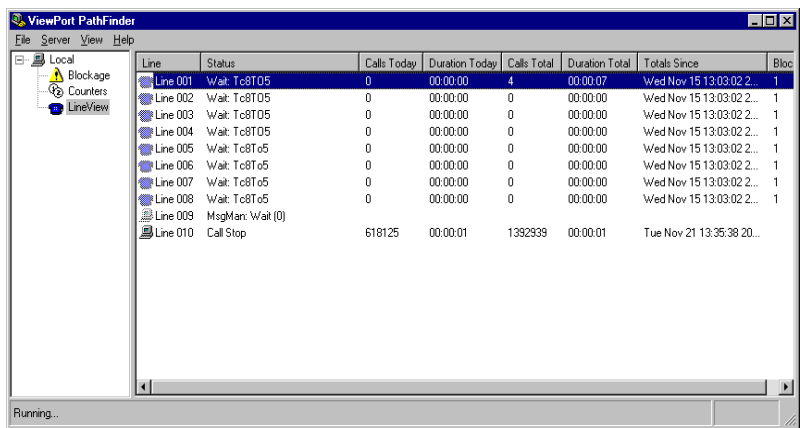


Figure 7-8: Monitor [Line View] Window

You can also restart a line via the line detail (or via the right mouse-click menu).

Displays totals for inbound calls. You can view today’s totals as well as totals for the entire application.

8 Back-Ups / Logs / Errors / and Troubleshooting

This chapter contains the information needed to help you maintain the PathFinder system by providing: a system back-up procedure, statistical logs, and answers to the most common system problems.

Backing Up *PathFinder*

PathFinder allows you to back up important files in case of a catastrophe. Backups can be very important and we recommend backing up often. There are several ways that *PathFinder* can be backed up.

Table 8-1: *PathFinder* Backup Methods

Method	Description
Network	If the network is backed up periodically and <i>PathFinder</i> is a node on the network, then network backups are sufficient. Consult your network administrator for more information.
Tape	If there is a tape drive on the <i>PathFinder</i> PC, Windows NT supports periodic automatic backups of <i>PathFinder</i> . Consult your Windows NT manual on how to perform tape backups.
Manual	<p><i>PathFinder</i> can be backed up when there is a change made to <i>PathFinder</i> in order to protect the data. Typically, these backups are performed manually and are described below. You can manually back up <i>PathFinder</i> at three levels.</p> <ul style="list-style-type: none"> ❑ Level One -- To back up all of the vital programming of <i>PathFinder</i>. Back up the \HELLONT\DATABASE directory by the method best suited to your application. Be certain to back up all subdirectories under these main directories. ❑ Level Two --Includes the first level, and subscriber greetings, menu greetings and other static voice prompts. Back up the \HELLONT\DATABASE, \HELLONT\VOX, \HELLONT\MESSAGES*.SIG, and \HELLONT\MESSAGES*.GR? directories by the method best suited to your application. Be certain to back up all subdirectories under these main directories. ❑ Level Three --Contains the first and second levels, and all mailbox messages. This is a complete backup of <i>PathFinder</i>, and depending on the number of messages on <i>PathFinder</i>, it could involve a large amount of data. Back up the \HELLONT\DATABASE, \HELLONT\VOX, and \HELLONT\MESSAGES*.*. Be certain to back up all subdirectories under these main directories.

Log Files & Error Messages

PathFinder outputs three types of logs:

- ☐ System Error
- ☐ Maintenance Access
- ☐ Daily System Activity

All log files are in ASCII text format, which allows them to be printed or viewed with a simple text editor, like *Notepad* or *Write*.

System Error Log

The *PathFinder* Error log is directed to a file named ERROR.LOG. The Error log file is stored in the \HELLONT\LOGS directory. The Error log file contains general *PathFinder* information. The Error log file is a cumulative file. Once *PathFinder* is initialized the Error log file is written. Each time *PathFinder* is reset or there is a general problem, the new log information is appended to the existing Error log file.

Each line in the Error log file contains four fields, as follows:

Table 8-2: System Activity Log Fields

Field	Indicates ...
First	what type of log line is listed. The column contains an alpha character.
Second	the date the Error log line was generated.
Third	the time the Error log was generated in a hh:mm:ss.ttt format.
Fourth	the error condition (text varies in length).

Several lines that appear in the Error log do not indicate errors. These lines are similar to the following:

```
B 07/30/98 10:51:03.568 --- Hello! Startup - Version 7.0.192
B 07/30/98 10:51:03.658 --- Logging State is 4
B 07/30/98 10:51:03.788 --- Engine Serial Number: 900680
B 07/30/98 10:51:17.969 --- enabling tcp/ip inbound telnet
B 07/30/98 10:51:17.979 --- tcpip: you are known as esivmail
B 07/30/98 10:51:18.009 --- Fast function trigger rate is 50
B 07/30/98 10:51:18.019 --- Default thread priority 0
B 07/30/98 10:51:18.019 --- Main process priority 0
B 07/30/98 10:51:18.019 --- Main thread priority 2
P 07/30/98 10:51:19.521 --- tcpip:memupdates on
P 07/30/98 10:51:38.358 --- tcpip:memupdates off
P 07/30/98 10:51:39.380 --- tcpip:memupdates off
B 07/30/98 10:51:41.653 --- Hello! Terminating.
```

Figure 8-1: Error Log Example

The first ten lines indicate that the voice-processing engine was started correctly. The last three lines indicate that the voice-processing engine was terminated correctly. This is just a sample; your situation may be different.

System Maintenance Log

The maintenance log is made up of separate files. Each day that the MAINT application is accessed, it generates a separate file. The files are stored in the \HELLONT\LOGS directory. The name of the file is MTyyymmdd.LOG, where yy is the year, mm is the month, and dd is the day. For example, the log for May 7, 1999 would be named MT990507.LOG.

The maintenance log file can keep track of unauthorized user access to MAINT. Each time MAINT is accessed, it generates log lines indicating what the maintenance user did. MAINT outputs maintenance activity log lines similar to those found in the Error log.

In general, each log line has three fields:

Table 8-3: System Activity Log Fields

Field	Indicates ...
First	the time the Error log line that was generated.
Second	the type of log generated: INFO or DEBUG. <input type="checkbox"/> INFO data typically consists of logins, logouts, and actions on the database. <input type="checkbox"/> DEBUG data typically consists of specific actions on the databases.
Third	the message describing why the line was generated.

System Activity Log

The System Activity log is made up of separate files. Each day *PathFinder* runs, it generates a separate file. The files are stored in the \HELLONT\LOGS directory. The name of the files is `DLyyymmdd.log`, where `yy` is the year, `mm` is the month, and `dd` is the day. For example, the log for May 7, 1999 would be named `DL990507.LOG`.

The System Activity log is more complicated than the Error log. Every phone call *PathFinder* takes generates log lines indicating what the caller did. *PathFinder* outputs system activity log lines similar to those found in the Error log (refer to [“System Error Log” on page 8-2](#)).

In general, each log line has four fields:

Table 8-4: System Activity Log Fields

Field	Indicates ...
First	the type of log line generated.
Second	the time the line was generated, in hh:mm:ss.ttt format.
Third	the channel (line) that output of the line. A line number of three hyphens (- - -) indicates a system message from <i>PathFinder</i> .
Fourth	the log message which can be very simple or very complex.

Activity Log - Sample #1

Below is an excerpt from a daily log file representing a typical blind transfer call into *PathFinder*. The call was generated with default logging options enabled.

```
C 11:06:56.833 1 Log: Start Call
C 11:06:59.677 1 Log: Menu MAIN9711 11:06:57 Keys 2:AaSTART
C 11:07:00.729 1 Log: AutoA 242 Access
C 11:07:06.537 1 Log: AutoA 242 Blind B1 Connect 242
C 11:07:06.537 1 Log: Stop Call 11:06:56
C 11:08:35.074 1 Log: Start Call
C 11:08:36.767 1 Log: Menu MAIN9711 11:08:35 Keys 8:Vm
C 11:08:40.252 1 Log: VMail 1242 Take message
C 11:08:41.754 1 Log: Stop Call 11:08:35
```

Figure 8-2: Typical Blind Transfer Call Log

- ☐ Extension 242 is set to forward on busy or no answer to voice mail.
- ☐ The call was placed into *PathFinder* and the caller was transferred to extension 242.
- ☐ Then, extension 242 either didn't answer or was busy.
- ☐ Therefore, the call was forwarded to mailbox 1242.

Activity Log - Sample #2

Below is an excerpt from a daily log file representing a typical supervised transfer call into *PathFinder*. The call was generated with default logging options enabled.

```
C 08:19:54.687 1 Log: Start Call
C 08:19:59.985 1 Log: Menu NITE9608      08:19:55 Keys 2:AaSTART
C 08:20:00.796 1 Log: AutoA 260 Access
C 08:20:25.201 1 Log: AutoA 260 Call 260 NoAnswer Ca
C 08:20:25.211 1 Log: AutoA 260 To mailbox 1260
C 08:20:36.487 1 Log: VMail 1260 Take message
C 08:22:18.604 1 Log: VMail 1260 Voice 00:01:41 K#
C 08:22:20.186 1 Log: Stop Call 08:19:54 H7
```

Figure 8-3: Typical Supervised Transfer Call Log

- ❑ The call was started at 08:19:54.687.
- ❑ The NITE9608 menu was accessed, and the caller pressed the 2 key (which is assigned the Extension/Auto-Attendant Start Key).
- ❑ Then, they entered 60. This is apparent because the caller was transferred to extension 260.
- ❑ *PathFinder* detected a no answer condition.
- ❑ Because *PathFinder* received a No Answer condition, the caller was transferred to mailbox 1260.
- ❑ The caller recorded a message for 1:41 minutes and then pressed the # key.
- ❑ The last line shows that the call ended.



Ca represents the Supervised Transfer option, and *Ho* represents the Call Holding option when using supervised transfers.

Debugging

PathFinder can give more or less information depending on the level of debugging enabled on *PathFinder*. Refer to “Logging” on page 5-6 for more information on logging and debugging options. Below is a sample of the *Activity Log - Sample #2*, but with all debugging options enabled.

Notice the line at 08:20:05.853. It describes the transfer string sent to the telephone system in order to transfer the call to extension 260.

(This data is often used by technical support for troubleshooting.)

```

C 08:19:54.687 1 Log: Start Call
C 08:19:55.248 1 H!KERNEL Debug: gRunCode <TcESIMAIN>
C 08:19:55.268 1 H!KERNEL Debug: gRunCode <MnNITE9608>
C 08:19:59.985 1 Log: Menu NITE9608 08:19:55 Keys 2:AaSTART
C 08:19:59.985 1 H!KERNEL Debug: gRunCode <Aa>
C 08:20:00.796 1 Log: AutoA 260 Access
C 08:20:00.796 1 H!AUTOA Debug AutoA 260 Action=<Ca> Data=<260>
C 08:20:00.876 1 H!AUTOA Debug: Before prompt H0 Key?0
E 08:20:05.853 1 dialvox:call: <6#260> entered
E 08:20:22.347 1 dialvox:call: <6#260> result=8(8:1:0) drvvrst=Idle
C 08:20:22.347 1 H!AUTOA Debug: Transfer (Call) Result=8
C 08:20:22.357 1 H!AUTOA Debug: Connect=[8]: No Answer
C 08:20:22.357 1 H!AUTOA Debug: HangUp=0
C 08:20:22.367 1 H!AUTOA Debug: HangUp Type=H0
C 08:20:22.367 1 H!AUTOA Debug: Processing (Call) Result [8].
C 08:20:22.377 1 H!AUTOA Debug: Telephony Type [].
C 08:20:22.377 1 H!AUTOA Debug: gFncResult [8].
C 08:20:25.201 1 Log: AutoA 260 Call 260 NoAnswer Ca
C 08:20:25.211 1 Log: AutoA 260 To mailbox 1260
C 08:20:25.211 1 H!KERNEL Debug: gRunCode <Vm1260>
C 08:20:36.487 1 Log: VMail 1260 Take message
E 08:22:18.394 1 dialvox:DialVox/record:
D:\HELLONT\MESSAGES\0\6\VT1260.L01:8302:180 s=300 m=0 result=0 oh=5 sh=5
C 08:22:18.604 1 Log: VMail 1260 Voice 00:01:41 K#
C 08:22:19.044 1 H!KERNEL Debug: gRunCode <Aa>
C 08:22:19.655 1 Log: AutoA 999 does not exist.
C 08:22:20.186 1 Log: Stop Call 08:19:54 H7
C 08:22:18.644 6 H!KERNEL Debug: wait(0) = 1.
C 08:22:18.644 6 Log: Start Call
C 08:22:18.654 6 Debug: Event Queue (3) <0 1>
C 08:22:18.664 6 H!KERNEL Debug: get_event(10/06/
1998,08:22:18,MmNmVT1260.NJ9,0)
C 08:22:18.674 6 H!KERNEL Debug: gRunCode <MmNmVT1260.NJ9>
C 08:22:18.704 6 Log: MsgMan Nm VT1260.NJ9
C 08:22:18.744 6 H!DBASE Debug: Mbx:1260 Set Online <Ft No00-1>.
C 08:22:18.764 6 Log: Stop Call 08:22:18

```

Figure 8-4: Supervised Transfer Log (w/debugging)

Multiple Line Calls

There may be several telephone calls active on *PathFinder* with each line behaving differently. Below is a log line indicating telephone calls on lines one, two, and three.

This complete log shows a call placed on line three with several calls placed before the call on line three was completed.

```
C 09:50:27.474    1 Log: Start Call
C 09:50:34.123    3 Log: Start Call
C 09:50:34.234    2 Log: VMail 1230 Take message
C 09:50:34.274    2 Log: VMail 1230 To operator mailbox 0
C 09:50:34.324    2 Log: VMail 0 To time control OPERATOR
C 09:50:34.364    2 Log: AutoA 00 Access
C 09:50:38.690    3 Log: Menu MAIN9711    09:50:34 Keys    8:Vm
C 09:50:38.690    3 H!KERNEL Debug: gRunCode <Vm>
C 09:50:39.641    1 Log: Menu MAIN9711    09:50:28 Keys    *:Aa
C 09:50:40.252    1 Log: AutoA 160 Access
C 09:50:41.254    2 Log: AutoA 00 Blind Bl Connect 0
C 09:50:41.254    2 Log: Stop    Call 09:49:36
C 09:50:47.383    1 Log: AutoA 160 Blind Bl Connect 160
C 09:50:47.383    1 Log: Stop    Call 09:50:27
C 09:50:49.796    3 Log: VMail 1249 To owner
C 09:50:55.815    3 Log: Owner 1249 VN:0 VS:5 PN:0 PS:0 FN:0 FS:0
C 09:51:19.318    1 H!KERNEL Debug: wait(0) = 3.
C 09:51:19.328    1 Log: Start Call
C 09:51:22.723    1 Log: Menu MAIN9711    09:51:19 Keys    2:AaSTART
C 09:51:22.723    1 H!KERNEL Debug: gRunCode <Aa>
C 09:51:22.964    1 Log: AutoA 212 Access
C 09:51:32.838    1 Log: AutoA 212 Blind Bl Connect 212
C 09:51:32.838    1 Log: Stop    Call 09:51:19
C 09:52:11.303    1 Log: Start Call
C 09:52:22.319    2 Log: Start Call
C 09:52:28.758    2 Log: Menu MAIN9711    09:52:22 Keys    #:Pi #:Pi 9:Hu
C 09:52:28.758    2 Log: Stop    Call 09:52:22
C 09:52:28.999    3 Log: VMail 1260 To owner
C 09:52:32.894    3 Log: Owner 1260 VN:0 VS:21 PN:0 PS:0 FN:0 FS:0
C 09:52:36.950    1 Log: Menu MAIN9711    09:52:11 Keys    #:Pi #:Pi 9:Hu
C 09:52:36.950    1 Log: Stop    Call 09:52:11
C 09:52:37.942    2 Log: Start Call
C 09:52:44.391    2 Log: Menu MAIN9711    09:52:38 Keys    #:Pi #:Pi 9:Hu
C 09:52:44.391    2 Log: Stop    Call 09:52:37
E 09:55:38.201    3 dialvox:DialVox/record:
D:\HELLONT\MESSAGES\0\6\VI1260.MOC:8302:180 s=300 m=0 result=0 oh=5 sh=5
C 09:55:40.534    3 Log: Stop    Call 09:50:34
```

Figure 8-5: Multiple Line/Call Log

Menu Logs

The third line of this log shows which menu was picked (Demo), the time the call was made (10:25:08), which key the caller pressed for options 2, and where the menu forwards (Salesmnu), after menu has finished.

```
10:25:08 04 Log: Start Call
10:25:08 04 Log: Vmail 1304 Access
10:25:27 04 Log: Menu Demo 10:25:08 Keys 2: MnSALESMNU
10:25:32 04 Log: Stop Call 10:25:08
```

Figure 8-6: Menu Selection Log

No Answer Log

This log simply shows that there was no answer at extension 621 when the call came through.

```
08:13:07 11 Log: Notify (1) 1621 NoAnswer at 621
```

Figure 8-7: No Answer Log

Auto-Attendant Logs

General Call Data

This is an example of someone calling extension 624. The extension is busy as written in the first line. The abbreviations CaScHo stand for (Ca) Supervised Transfer, (Sc) Screening, and (Ho) Holding.

In other words, the supervised attendant transferred the call; it was then screened, and put on hold. The second line shows that it was held only once. The third line shows that the phone system tried the line once again. The last shows that the phone system sent the caller to mailbox 1624.

```
09:23:16 05 Log: AutoA 624 Call 624 Busy CaScHo
09:23:25 05 Log: AutoA 624 Hold Holding 1
09:23:46 05 Log: AutoA 624 Call 624 NoAnswer
09:23:46 05 Log: AutoA 624 To mailbox 1624
```

Figure 8-8: Auto-Attendant Log (Single Call)

Main Menu (No Action) Log

This log shows that the caller reached the MAINMENU and did not do anything. The menu took the Maximum Silence action which, was to hang up.

```
14:23:37 01 Log: Stop Call 15:00:55 H2: Max Silence
```

Figure 8-9: Auto-Attendant Log (Main Menu - No Action)

Operator (Blind Transfer) Call Log

This example shows that the caller pressed 0 at the menu and was transferred to the operator as a blind transfer.

```
08:55:21 05 Log: Menu DEMO 08:55:20 Keys 0:0p  
08:55:24 05 Log: Menu DEMO Transfer to Operator
```

Figure 8-10: Auto-Attendant Log (Operator Call - Blind Transfer)

Voice Mailbox Directory Log

This line shows that the caller pressed V for a directory of voice mailboxes.

```
11:07:23 04 Log: Directory Run:Vm
```

Figure 8-11: Auto-Attendant Log (VM Directory)

Troubleshooting

This section gives technical information on how to diagnose problems that could occur on *PathFinder*. The information in this section is highly technical, and unless the procedures are performed as instructed, *PathFinder* may fail to operate. A good working knowledge of Windows NT, DOS, and PC-based systems is essential.

Technique

The most important troubleshooting technique is isolating problems. Typically, problems fall into four categories:

- ❑ Problems with the telephone system
- ❑ Malfunctions in the PC hardware
- ❑ Problems with the operating system
- ❑ Problems with *PathFinder*

Problems with the Telephone System

Problems with the telephone system will cause problems in *PathFinder* during call transfers. The best way to determine if the problem is with *PathFinder* is to eliminate the possibility that the telephone system is the problem, as follows:

1. Pull a telephone list from *PathFinder* and plug it into either an analog telephone or a test set.
2. Simulate the action *PathFinder* should take.
3. If the problem remains on the analog telephone, then the problem is within the telephone system.
4. If the problem is solved by the analog telephone, then the problem may be within *PathFinder*.

Problems with the PC Hardware and/or Operating System

Problems with the PC hardware or operating system manifest themselves in various ways. Depending on the type of BIOS in the system, hardware problems may appear at the boot-up level or as an error reported by the operating system. The Event Viewer, Windows NT Diagnostics, and Control Panel programs are useful troubleshooting tools within the Windows NT Operating System.

Problems with *PathFinder*

Problems with the voice processing software are typically related to time control configuration, message waiting indicators, message cascading and supervised transfers. The logs from the voice processing engine are vital to troubleshooting these types of problems.

Questions & Answers

Q: Each time I try to start the voice processing engine, I get the following error: "Could not find Streams Environment. Please reload drivers."

A: The Streams Environment has been installed incorrectly. Refer to *"Install Streams Environment" on page 2-19*.

Q: Each time I try to start the voice processing engine, I get the following error: "TCP/IP Connectivity is not set up correctly on this machine. I am unable to determine your host name and address. Please install TCP/IP and related services before using Monitor."

A: The TCP/IP protocol has not been correctly installed. Refer to *"Configuration" on page 2-26*.

Q: Each time I try to start the voice processing engine, I get the following error: "Could not start Dialogic service: Please reload drivers."

A: The Dialogic® Board configuration software has not been run or has not been installed properly. Consult the Event Viewer in the Administrative Tools program group to give more information on the error. Please correctly configure your Dialogic board. Refer to *[“Install and Configure Hardware” on page 2-5.](#)*

Q: Message Waiting Indicators are not lighting on my system. What is wrong?

A: There could be several problems. Follow these steps when troubleshooting MWI problems:

- ☐ Verify that you can set and clear message waiting indicators from an analog telephone set.
- ☐ Verify the MWI settings are correct. Access the MAINT application. Select from the menu bar Configuration > Telephony Settings > MWI/Notification. Verify the Message Waiting Set and Clear settings are accurate for your telephone system. Verify that the correct Number Length is defined in the Number Length to Edit selection box is chosen.
- ☐ Verify that the E in @Ext is capitalized in the Message Waiting Set and Clear settings.
- ☐ Verify that there is no setting in the Class of Service > Notification > MWI Strings On and Off.
- ☐ Verify that the Message Waiting setting is not **Off**.
- ☐ Verify that there is at least one line (Line Settings) set to service the Event Group defined in the Class of Service > Notification > Event Handler Group.
- ☐ Verify that under Configuration > System Settings > Auxiliary Tasks there is at least one task defined as MSGMAN that services event group one.

Q: Calls are not being routed to extensions properly.

A: First, replace *PathFinder* with a single line telephone set and verify that transfers work properly without *PathFinder*. If you are unable to do hook-flash transfers with the single line telephone then check all phone system settings and retry the test.

Verify the entire path by which a call is handled. Typical problems include incorrect Time Control and Menu settings. Compare your Time Control and Menu settings with the default Time Control and Menu settings described in this manual. Use the defaults described in this manual as a template for configuring your Time Control and Menu settings.

Q: Call transfers are not working correctly.

A: Follow the steps below to troubleshoot call transfers.

1. Verify the transfer works properly with either a single line telephone or test set, then attempt the transfer. If the transfer does not work properly with the single line telephone, verify the telephone system settings, then retest. If this does not work, the problem is within the telephone system.
2. Check to make sure that you have the correct prefix settings to perform a transfer. Select from the menu bar Configuration > Telephony Settings > Transfer Settings. Make sure the Transfer Prefix and Transfer Postfix are set correctly. Consult your telephone system documentation for the correct settings.
3. Check the flash hook length setting is correct. To check this setting, select from the menu bar Configuration > Telephony Settings > Transfer Settings. The setting should match what is configured in your telephone system.

Q: Caller hears DTMF during an attempted transfer.

A: The flash hook setting is probably too short. To check this setting select Configuration - Telephony Settings - Transfer Settings. The setting should match what is configured in your telephone system.

Q: *PathFinder* seems to answer the call, but then hangs up almost immediately. What is wrong?

A: Check your time control settings. *PathFinder* may be approaching the end of a time control setting. If there is no definition for the current date and time, *PathFinder* doesn't know what to do and hangs up. Additionally, review the logs for Hx settings to determine the type of hang-up *PathFinder* is performing.

Q: Supervised transfers are not working on my system.

A: There could be many causes of the problem. See below for possible solutions:

- ❑ When you select a telephone system, *PathFinder* creates a series of subscribers. The default subscribers are programmed to use blind transfers. We recommend using blind transfers unless required by the customer.
- ❑ *PathFinder* may require the ring and busy tones to be learned by PBXpert. Refer to ["PBXpert" on page 2-42](#).
- ❑ If you are using Supervised Transfers, the extensions using supervised transfers should not be set to **Forward on Busy or No Answer**. Also, any recall times in the telephone system are disabled.

Q: Call Queuing does not work.

A: For call queuing to work, you must use supervised transfers and call holding must be enabled. Additionally, call queuing must be enabled in the Class of Service.

Q: *PathFinder* does not answer calls.

A: There could be many causes of the problem. See below for possible solutions:

- ❑ Verify the calls are routed to the voice mail system by substituting an analog telephone or test set for *PathFinder*. If the phone does not ring, check your Hunt Group or Phone system settings.

- ❑ If the line is ringing, move the phone line to another voice processing port. If *PathFinder* does answer, the problem is likely with the voice processing board. First run the Universal Dialogic Diagnostics program found in the Dialogic System Software program group. If any errors occur, correct the problem and re-test.
- ❑ Check the *Number of rings before system answers incoming calls* field in the Configuration > Telephony Settings > Rings window. It should be set to a number between one and three. If the number is too high, it may give the impression that *PathFinder* is not answering.
- ❑ If *PathFinder* occasionally does not answer calls during heavy traffic periods, it is possible that the hunt group on the telephone system is not configured correctly. Check all telephone system programming.

Q: *PathFinder* takes a long time to release the line after a caller has hung up.

A: *PathFinder* detects a loop current disconnect by default. The telephone system you are using may not use loop current disconnects. Consult your telephone system manual to verify the telephone system does not use loop current disconnects. If the telephone system does not support loop current disconnects, PBXpert needs to be run to learn the tones. Refer to *"PBXpert" on page 2-42*.

Q: How do I record prompts for the Menus I created?

A: There are two ways to record Menu prompts:

- ❑ **Boom Box:** Boom Box allows you to record menu prompts via the sound card in your computer or via the Dialogic board on *PathFinder*.
- ❑ **Record Prompts:** When Record Prompts is set as a Key Action in a Menu, this allows access to prompts in that Menu level. Refer to *"Key Action Definitions" on page 5-90*.

A Command Files & Notification Scripts

Command Files are used in *PathFinder* to expand the basic capabilities to meet the needs of special notification/paging systems, phone systems, TIE lines, and special installations. Command files can be used in many places, such as:

- ❑ Mailbox notification (refer to *"Notification Settings" on page 5-73*)
- ❑ Extension forwarding (refer to *"Setting Up Phone Lines" on page 5-102*)
- ❑ Mailbox forwarding (refer to *"Setting Up Phone Lines" on page 5-102*)
- ❑ Time controls (refer to *"Time Control Settings" on page 5-93*)
- ❑ Directly from a menu (refer to *"Editing a Menu" on page 5-87*)

Command Files

A command file is an ASCII text file with one command per line. An ASCII text file is also known as a plain text file. You can use any editor, including Microsoft Word, Notepad, or Edit to create a Command File. Be certain when using any editor to save the file in a "Text Only" format. One command per line means that each command should be on a single line.

For example, to dial a number and Quit, the file must look like this:

```
Dial=9,17701234567
```

```
Quit
```

When typed as follows, the file does not work:

```
Dial=9,17701234567 Quit
```

Guidelines

Only the commands listed below may be used. Any other lines are discarded.

- ❑ If a line starts with the ";" (semicolon) character then the rest of the line is ignored. For example, the command
;Dial 9,17701234567
is ignored by *PathFinder* because of the semicolon in the beginning of the line.
- ❑ In the list below, items in brackets (< and >) are variables and represent strings that you must supply. In the Command Descriptions below we describe what type of variable to use. For example, Call=<DTMFString> means that the command string uses a DTMF String to determine what number to call. A DTMF string is a series of DTMF tones, like pressing keys on a telephone key pad.
- ❑ Anytime a <Mailbox> or <Extension> appears, leaving it out causes the command file to use the global mailbox and extension. Typically, the global mailbox or extension is the last mailbox or extension accessed by *PathFinder*.

Command Descriptions

Table A-1: Command Descriptions

Command / String	Action	Description
Quit	Quits this command file.	<i>PathFinder</i> then puts the line on-hook and prepare for another call. Typically, this is the last line in the file because it ends the command file. If <i>PathFinder</i> reaches the end of a command file, a "Quit" command is implied. <i>Related Commands:</i> OnHook
OnHook	Puts phone on-hook.	Typically, this command is used to place the line On-hook after completing a call. Caution: In a very active system, this command could cause <i>PathFinder</i> to answer an incoming call before <i>PathFinder</i> is ready. <i>Related Commands:</i> OffHook, Quit
OffHook [=Delayed]	Takes phone off-hook.	If "=Delayed" is specified, then the phone is not placed off-hook until a dial or call is actually executed. This is useful when the time between the OffHook and Dial is too long. Except for notification, the phone line is typically already off-hook. Doing a second off-hook does not affect anything.
Call =<DtmfString>	Calls the number.	Using the Call feature is like using supervised transfers when transferring an Auto-Attendant call to an extension. The voice mail system remains on the line and listen to the Call Result. This command is not complete until a Connect, Busy, or NoAnswer is detected. Note: The "Call" command works in conjunction with the CallResult command. <i>Related Commands:</i> CallResult, OffHook, Sleep

Table A-1: Command Descriptions (Continued)

Command / String	Action	Description
CallResult <07-12>=<Command...>	Branch on result of a call; 7=busy, 8=no answer, 10=connect.	The command in the <Command...> field is executed if the CallResult<07-12> is true. You can enter a block of commands to run if a specific call result is met. For example, you can have the following commands executed if the CallResult is a connect: - CallResult10=DialMailbox - CallResult10=OnHook - CallResult10=Quit If the call is connected then we dial the mailbox number, go on hook, and quit the file. NOTE: CallResult does not work when used in conjunction with the Dial command. You must use the Call command. <i>Related Commands:</i> Refer to example below for additional information.
LogCallResult	Logs the results of the call in the daily log file.	The log line looks similar to this: <i>Related Commands:</i> CallResult
Dial =<DtmfString>	Dials the number in the <DtmfString>.	Using the Dial command is like using blind transfers in the Auto-Attendant. <i>PathFinder</i> only dials the number and immediately execute the next command. It does not listen on the line to check if the call was connected. NOTE: The Dial command does not work with the CallResult command. <i>Related Commands:</i> Sleep, Dial
Sleep =<SecondsToSleep>	Pauses for the specified seconds.	Allows <i>PathFinder</i> to wait for a number of seconds before performing the next command. <i>Related Commands:</i> Dial, Call
PlayFirstMessage =[New Save Kill Delete]	Plays the first message.	Without a parameter, the message is left as a new message. You may also specify Save, Delete, or Kill to act on the message. New leaves the message as new in the mailbox. Save marks the message as saved in the mailbox. Use Kill or Delete to remove the message after playing. The person receiving the call is not able to manipulate the message after listening to the message. In other words, they are not able to save, delete, or forward the message. <i>Related Commands:</i> Dial, Call
DoMessageRetrieval =<Mailbox>	Allows message retrieval.	Allows the caller to retrieve and manipulate messages as if they were calling into <i>PathFinder</i> accessing their voice mail box as an owner.

Table A-1: Command Descriptions (Continued)

Command / String	Action	Description
CommandFile =<NewCommandFile>, <Path>	Runs another command file.	The <NewCommandFile> variable is the name of the alternate command file. The <Path> variable tells the exact path to find the <NewCommandFile>. The command typically is typically called by CommandFile=CFILES/000.CF,0 The <Path> is a numeric value and matches the path settings in the Registry. The command file listed in <NewCommandFile> executes all commands and terminates. It does not return control to the originating command file.
Say =<FileName>, <Path>	Says a file.	Plays the prompt file listed in <FileName>. The <Path> variable tells the exact location to find the <FileName>.
Log =<LogString>	Logs the string to the daily log file in the <LogString>.	The <LogString> variable can be anything you would like. The <Path> is a numeric value and matches the path settings in the Registry.
Status =<StatusString>	Shows string in status box.	Status allows you to change the run-time status associated with a line. This is what you see in monitor in Windows NT voice mail systems.
Echo =<On Off>	Turns Status() on off.	Echo toggles command line debugging on & off.
Mailbox =<Mailbox>	Opens the mailbox defined in <Mailbox>.	Takes the action defined in <Mailbox>'s actions. If no mailbox is defined, it uses the global mailbox.
Extension =<Extension>	Transfers to the <Extension>.	Takes the action defined in the <Extension>'s actions. If no extension is defined, it uses the global extension.
Module =<ModulesName>, <glb_parameter>	Runs module in <ModulesName>.	If the Module requires any parameters use the <glb_parameter> to define the parameters.
Line <00-32> =<Command...>	Checks current line.	It is a command used to branch based on if the current channel is "correct." For example, if you only wanted to do something on line 5, then you would use: Line05=Call=9,7706621503

Table A-1: Command Descriptions (Continued)

Command / String	Action	Description
Notify	Does notification for the global mailbox.	This is used to restart notification for the global mailbox if <i>PathFinder</i> has not extinguished the notification retries. This is similar to the "Pager Uses Retries" field in the COS record. Pager Uses Retries is not active for command file paging. Use the Notify command to force using retries.
DtmfRead =<count>, <terminate>, <time>	Reads DTMFs.	<i>PathFinder</i> either waits for these digits or if the digits are already in the buffer (the caller has already entered the digits) <i>PathFinder</i> does not have to wait. The command waits for 3 terminating conditions: <count> digits are read, one of the digits specified in the <terminate> parameter is read or <time> seconds passes. An example of a command is: DtmfRead=5, 7, 10 Where <i>PathFinder</i> waits for 5 digits, 7 is the terminating digit and <i>PathFinder</i> waits 10 seconds. <i>Related Commands:</i> Dtmf<String>, WriteDtmf
Dtmf <String> =<Command...>	Reads Branch on Dtmf...	If the <String> value matches the value received in DtmfRead, then perform the <Command>. Dtmf 34567=Dial=7701234567 If <i>PathFinder</i> receives the string "34567" from the "DtmfRead" command, it dials the DTMF number "7701234567". <i>Related Commands:</i> DtmfRead, WriteDtmf
WriteDtmf =<FileName>, <path>	Appends Dtmf contents to file.	Write the DTMF string received in <DtmfRead> to the <FileName>. The <FileName> is in the <path>. WriteDtmf=Kelly.txt <i>Related Commands:</i> DtmfRead, Dtmf<String>
HangUp =<Command... Off>	On hangup does (DtmfRead only).	If you receive a HangUp command while reading DTMF digits with the "DtmfRead" command, then perform the command in <Command>. HangUp=DialMailboxWhere If Hangup=Off, <i>PathFinder</i> does not look for a hangup event and continues to wait for DTMF digits. <i>Related Commands:</i> DtmfRead
Menu =<Menu Name>	Runs the Menu...	defined in <Menu Name>.

Table A-1: Command Descriptions (Continued)

Command / String	Action	Description
DialMailbox	Dials global mailbox and mailbox number.	Using the Dial command is like using blind transfers in the Auto-Attendant. <i>PathFinder</i> only dials the global mailbox number and execute the next command. It does not listen on the line to check if the call was connected. <i>Related Commands:</i> Sleep, Dial
CallMailbox	Calls the global mailbox.	Using the Call feature is like using supervised transfers when transferring an Auto-Attendant call to an extension. The voice mail system remains on the line and listen to the Call Result. Note: The "Call" command works in conjunction with the CallResult command. <i>Related Commands:</i> CallResult, OffHook, Sleep
DialExtension	Dials global mailbox.	Using the Dial command is like using blind transfers in the Auto-Attendant. <i>PathFinder</i> only dials the global mailbox number and execute the next command. It does not listen on the line to check if the call was connected. <i>Related Commands:</i> Sleep, Dial
CallExtension	Calls the global extension.	Using the Call feature is like using supervised transfers when transferring an Auto-Attendant call to an extension. The voice mail system remains on the line and listen to the Call Result. NOTE: The "Call" command works in conjunction with the CallResult command. <i>Related Commands:</i> CallResult, OffHook, Sleep
Debug =<On Off	Turns CommFile debugging on and off.	This writes debugging information to the daily log files.
CallMailboxWhere	Calls the number in the Notification Number setting of the global mailbox.	Using the Call feature is like using supervised transfers when transferring an Auto-Attendant call to an extension. The voice mail system remains on the line and listen to the Call Result. NOTE: The "Call" command works in conjunction with the CallResult command. <i>Related Commands:</i> CallResult, OffHook, Sleep
DialMailboxWhere	Dials the number in the Notification Number setting of the global mailbox.	Using the Dial command is like using blind transfers in the Auto-Attendant. <i>PathFinder</i> only dials the number and executes the next command. It does not listen on the line to check if the call was connected. NOTE: The Dial command does not work with the CallResult command.

Table A-1: Command Descriptions (Continued)

Command / String	Action	Description
DialMailboxBeeperFile DialPagerFile	Dials the digits found in the latest page or message.	Dials the digits left as a pager message in the mailbox. For example, if you call this command in the Command File and there was a pager message in the mailbox, <i>PathFinder</i> would outdial the DTMF tones left as a pager message. If no page message is sent, then <i>PathFinder</i> dials the mailbox number. <i>Related Commands:</i> PreventMboxAsPage
`<0-6> =<Command...>	Executes the <Command..>. Sunday=0, Monday=1, ..., Saturday=6.	if today's day of week matches <i>Related Commands:</i> Time
Time <HH:MM>-<HH:MM>=<Command...>	Executes the command...	if the current time falls between the times. First time must be the lowest and you cannot wrap around to the next day. For example: - Time10:00-00:30=DialMailboxWhere - Is not valid. To accomplish the same thing use: - Time10:00-11:59=DialMailboxWhere - Time00:00-00:30=DialMailboxWhere
DeliverNewFax =<Dtmf String>	Delivers new faxes...	to the number specified or to the mailbox Notification Number field if none specified. Always uses the global mailbox.
CancelPendingNotifies	Cancels all pending notifications for the global mailbox.	The command deletes all queued notification requests. It does not modify paging files.
PlayVoicePage	Plays the next voice message file.	Should only be used on voice pagers. <i>Related Commands:</i> PlayFirstMessage.
DialPrefixForWhereField	Dials the dialing prefix defined in the Registry based on the length of the number in the Notification number field of the global mailbox.	For example, the registry contains the variable "AaDialPrefix07=9,." The notification number from the global mailbox has 7 digits. When sending the DTMF for the Call or Dial commands, we first dial <AaDialPrefix07>, then the number defined in the Notification number for the global mailbox. More specifically, we are sending a notification for mailbox 1221 with a notification number of "1234567". The command file is written as: - OffHook - Sleep=1 - DialPrefixForWhereField - DialMailboxWhere <i>PathFinder</i> would go off-hook, sleep for 1 second, dial "9," and then "1234567" <i>Related Commands</i> -- DialMailbox

Table A-1: Command Descriptions (Continued)

Command / String	Action	Description
DeleteAllPages	Deletes all pager messages...	associated to the global mailbox.
ProcessNextEvent	Processes the next event for this channel group.	This is used to speed up the event handling because the channel does not have to go back to the wait state. If the next event is a notification event, then <i>PathFinder</i> can process it much more quickly than if the command file did a "Quit" and returned to the main loop. If no events are due for this channel, then the next instruction in the command file after "ProcessNextEvent" is executed.
AbortIfNoPages	Aborts (Quits) the command file...	if no paging messages exist.
PreDialDelay=xx PostDialDelay=xx	Uses the pre and post dial delays to pause between taking the phone off-hook and dialing.	These statements are only useful if OffHook=Delayed is also used. Normally, these are only used when the execution of the command file is progressing too slowly to use the Sleep=X command. <i>Related Commands:</i> OffHook, Sleep
LoadMailboxBeeperFile	Loads the next page message into memory...	when DialMailboxBeeperFile is called, <i>PathFinder</i> does not have to hit the disk. Helps speed up the notification process. <i>Related Commands</i> -- DialMailboxBeeperFile
PreventMboxAsPage	Prevents the mailbox number from being sent as a page message.	If a page message is left in the mailbox and the pager notification is initiated, you typically would want the page message sent. If the caller didn't leave a page message, but left a voice message, then you can use this command to continue the execution of the command file. <i>Related Commands:</i> DialMailboxBeeperFile
RestartIfNewMessage	Restarts this command file (with the same global mailbox)...	if new voice messages exist.
DeleteAllNewMessages	Deletes all new messages...	for the global mailbox.
WaitForEvent =<Seconds>	Waits the specified number of seconds for an event.	An event is defined as an incoming call, hangup, interline message, etc.

Table A-1: Command Descriptions (Continued)

Command / String	Action	Description
WaitResultX =<Command..>	Uses WaitResultX to break out the message.	Waits for the result of the event in the "WaitForEvent" and execute the <Command> based on the result. The "WaitResultX" has a similar function to "CallResult" <i>Related Commands:</i> WaitForEvent
NewMessagesXXX-XXX =<Command..>	Executes the command based on the new message count.	Indicates different commands to be executed based on the number of new messages.
DialNewMsgCount DialSavedMsgCount DialNewOnlyMsgCount DialUrgentMsgCount	Dials the DTMF digits...	representing the New or Saved voice message counts for the global mailbox.
GlbMailbox =<mailbox number>	Changes the global mailbox to a new mailbox.	Normally, when command files are used to do mailbox notification (or in paging systems), GlbMailbox is set to the mailbox number doing the notify. This command could be used to change the global mailbox. This is common for cascaded pagers.
PlayMailboxGreeting	Plays the Standard mailbox greeting...	for the global mailbox.
DebugOff	Turns CommFile debugging on and off.	This writes debugging information to the daily log files.
AbortIfNoNewVoMsgs	Aborts command file...	if no new messages, or new urgent messages are in the global mailbox.
MsgSourceOk =<Command...>	Branch to run <Command>...	if a new message has been forwarded to your mailbox. <i>Related Commands:</i> DialMsgSource
DialMsgSource	Dials digits in Msg Source...	if a message is forwarded to your mailbox, the Command file sends the originating mailbox number.
Version	Sets a local variable...	indicates the version of the Command File.

Quick Commands

QuickCommand=<command sequence>

Quick commands allow you to replace the longer command strings above with shorter mnemonic described below. Additionally, processing of the command file is much faster when using mnemonics.



Both the Dw, Tw and Dp commands are preloaded so that the information (page file or the mailbox's Where field) is loaded and the complete QuickCommand executes very quickly.

Quick Command Descriptions

Table A-2: Quick Command Descriptions

Command	Description
Qu	Quit
On	OnHook
Of	OffHook
Sl	Sleep, requires one digit seconds, Sl5 = Sleep=5, Sl5Sl5=Sleep=10
Dw	DialMailboxWhere
Dp	DialMailboxBeeperFile, dials pager file
Pm	PlayFirstMessage, followed with d=Delete, s=Save n=New
Ne	ProcessNextEvent
Za	Zap (erase) all messages
Ap	Abort if no pages
Rp	Restart if pages exist
No	Notify
Tw	Where field is timed. (placed before Dw)
Rn	Restart if new messages.

Example

QuickCommand=OfSl1DwSl3DpSl1OnNeQu is equivalent to:

OffHook	Sleep=1
Sleep=2	OnHook
DialMailboxWhere	ProcessNextEvent
Sleep=3	Quit
DialMailboxBeeperFile	

Even though this is not as quickly, it works.

Combining Commands

You may also combine Quick Commands and regular commands as follows:

```
QuickCommand=OfSl1DwSl3
DialMailboxBeeperFile
Sleep=1
QuickCommand=OnNeQu
```

Technical Notes

When creating a command file for pager notification, the timing of the digits to be sent from the voice mail system to the pager is critical. The command file must be synchronized with the timing of the pager being used. When determining the timing of the pager:

1. Call the paging company.
2. Calculate the amount of time from when you dialed the last digit to the pager company and the time the pager company asks for the digits to be sent to the pager.
3. Modify the Sleep time to be the time you calculated for the digits to be sent to the pager.

For further information, contact technical support.

Pre-Defined Command Files

The self-contained voice mail unit has several pre-defined command files. The command files are located in the \HELLO\CFILES subdirectory. They have the following file names:

PAGER10.CF	006.CF	106.CF
PAGER12.CF	008.CF	108.CF
PAGER14.CF	010.CF	110.CF
PAGER16.CF	012.CF	112.CF
PAGER18.CF	014.CF	114.CF
PAGER20.CF	016.CF	116.CF
PAGER22.CF	018.CF	118.CF
PAGER24.CF	020.CF	120.CF
PAGER6.CF	022.CF	122.CF
PAGER8.CF	024.CF	124.CF

The numeric portion of the name describes the number of seconds after dialing the pager number (but before sending the mailbox digits to the paging company).

Sample Pager Files

Below is a sample of the pager file that we use. It is from PAGER10.CF; this is similar to PAGERXX.CF and OXX.CF files.

OffHook	DialUrgentMsgCount
Sleep=2	Dial=*
DialPrefixForWhereField	DialNewOnlyMsgCount
Sleep=3	Dial=*
DialMailboxWhere	DialSavedMsgCount
Sleep=10	Dial=#
DialMsgSource	OnHook
MsgSourceOk=Dial=*	Notify
Dial=*	Quit

Below is a sample of the pager file that we use (it is from 110.CF, this is similar to 1XX.CF files):

OffHook	Dial=*
Sleep=2	DialNewOnlyMsgCount
DialPrefixForWhereField	Dial=*
Sleep=3	DialSavedMsgCount
DialMailboxWhere	Dial=#
Sleep=10	OnHook
DialMailbox	Notify
Dial=*	Quit
DialUrgentMsgCount	

Modifying Command Files

Use a text editor such as Notepad.exe to view or modify a command file.

Examples

A sample command file that mailbox 232 would use for notification is listed below. The file first takes the phone off-hook and dial a beeper number. If a connect is detected (CallResult = 10) the mailbox number is sent, and the file Quits. If we do not get a connect, the file calls another phone number and, upon a connect, sends the last message received. If the last number does not answer, we schedule another notify.

The *sleep=* commands are used to give the phone line time to settle.

```
; Mailbox 232's notification file
OffHook
Sleep=1
Call=9,14046621503
Sleep=2
; If we got a connect then send the mailbox and hang-up
CallResult10=DialMailbox
CallResult10=OnHook
CallResult10=Quit
; We did not get connected - so try another number.
OnHook
Sleep=1
OffHook
Call=9,011241230909
Sleep=2
; If we got a connect then play the message and hang-up.
CallResult10=PlayFirstMessage
CallResult10=OnHook
CallResult10=Quit
; Still no connect, so re-schedule notification.
OnHook
; The next two lines are simple time of day services.
DayOfWeek0=Console=Today is Sunday
Time10:00-14:00=Console=Time us between 10am and 2pm.
; The next 2 lines demonstrate linking of time of day
;   commands.
DayOfWeek3=Time10:00-10:30=Status=Wed 10:00-10:30am
DayOfWeek6=Time08:00-17:00=Menu=SAT_WORK
; Re-issue another notify
Notify
; Quit this command file
Quit
```

Figure A-1: Command File - Sample

B

Installation Forms

This chapter contains the Installation Forms to be used when installing the *PathFinder* application.

BASIC INFORMATION

Job Name: _____ Sales Rep: _____

End User Contact (Administrator): _____ Phone: _____

End User Contact responsible for recording custom prompts: _____

Installer: _____ User Trainer: _____

Installation Dates: Start: _____ Complete: _____

End User Training: _____

Telephone System Information

Type of telephone system (brand & model): _____

How many digits are there in the telephone system's station or extension numbers? _____

Is the telephone system capable of supporting In-Band Integration? Yes ☐ No ☐If YES, is the telephone system equipped to support In-Band Integration? Yes ☐ No ☐
(this includes both telephone system hardware & software)

What DTMF Digits does the telephone system use to turn on voice mail indicators: _____

What DTMF Digits does the telephone system use to turn off voice mail indicators: _____

Does the telephone system use a Hook Switch Transfer on Single Line Ports? Yes ☐ No ☐

Number of CO Lines or Trunks connected to the telephone system: _____

Number of telephones (extensions) connected to the telephone system: _____

List the single line port extension numbers that are to be used for Voice Mail Ports:

1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____ 8 _____

Will the Single Line Ports be placed in a voice mail group (hunt group)? Yes ☐ No ☐

What is the telephone system's voice mail group number or numbers? _____

BASIC INFORMATION - (continued)**Voice Mail Functions**

Number Of Voice Mailbox Users (Subscribers): _____

Number of Internal Subscribers (who have a phones in the telephone system): _____

Number of External Subscribers (who do not have a phones in the telephone system): _____

Are internal subscribers going to forward their phones to their mailboxes? Yes ☐ No ☐Will the telephone system provide Preset Call Forwarding to voice mail? Yes ☐ No ☐Will Subscribers use Pager Notification? Yes ☐ No ☐**Automated Attendant Functions**

When is Automated Attendant to be used? Daytime _____ Night _____ Both _____ Never _____

Will Automated Attendant be used as an overflow answering point (to help the live system operator)? _____

Number of CO Lines to be directly answered by Automated Attendant: _____

FAX Detection - Will the system be set to automatically route Fax calls? Yes ☐ No ☐

Fax Transfer Prefix: _____ ("&" = flash and a ", " [comma] = pause)

Fax phone number or extension number: _____

Operator - What do telephone system users normally dial to reach the system Operator? _____

Voice Mail Equipment Considerations

Where is the voice mail system to be located? _____

Is this location environmentally stable (air conditioned & heated)? Yes ☐ No ☐Will the systems be connected to a dedicated and grounded 120 volt, 60 Hz AC outlet? Yes ☐ No ☐

WARNING: Questions on this page answered as NO represent less than ideal conditions, and may cause immediate or delayed malfunctions, or may disrupt certain voice mail and telephone system capabilities.

SUBSCRIBER INFORMATION

Complete one copy of this form for each Subscriber or group of Subscribers

Subscriber Name or Group Description: _____

Mailbox/Extension Number(s): Department: _____

Class Of Service (COS)? _____

Mailbox Settings

Operator: _____ Cascade: _____ Mailbox Time Control (special use): _____

Mailbox Action Play Greeting: Yes ☐ No ☐

Action: Destination: _____

Notification: _____ Phone Number: _____

Pager Notification: Yes ☐ No ☐ Time (if timed notification): _____

Extension Settings

Extension Time Control (special use): _____

Action 1 - when calls are first transferred to the extension

Action: _____ Destination: _____

Supervised Transfer Options (circle one): Screen Caller ☐ Allow Holding ☐

Action 2 - ☐ Do Always ☐ Only On Busy ☐ Only On No Answer

Action: _____ Destination: _____

Supervised Transfer Options (circle one): Screen Caller ☐ Allow Holding ☐

Action 3 - ☐ Do Always ☐ Only On Busy ☐ Only On No Answer

Action: _____ Destination: _____

Supervised Transfer Options (circle one): Screen Caller ☐ Allow Holding ☐

CLASS OF SERVICE (COS) INFORMATION

Complete 1 copy of this form for each Class Of Service

COS Name (number): _____ Description: _____

General Settings

Time Control (special use): _____ Restrict Outdial - Number of digits: _____

User Type: (01 = normal, 99 = Administrators) Event Counter (circle one): ☐ Owners ☐ Callers

Message Settings

Message Type: ☐ Voice ☐ Page

Default Message Type: ☐ Voice ☐ Page ☐ Play Message Type Menu

Message Properties: Length: _____ (sec.) Count: _____ (messages) Retention: _____ (days)

Record Key - Wait for key press before recording messages? Yes ☐ No ☐

Greeting Types: ☐ Personal ☐ System ☐ Class Of Service ☐ Voice Insert
☐ System Add On Greeting Length: _____ (sec.)

Park and Page active? Yes ☐ No ☐

Callers: Stop Record Key: _____ Record Options On? Yes ☐ No ☐

Send Options: ☐ No Options ☐ Urgent ☐ Confidential ☐ Last Option On or Off: _____

Maintenance Settings

First Time Help (circle one)? Yes ☐ No ☐ Say Date and Time type: _____

Message Order: ☐ First in - First Out ☐ Last In - First Out

Owner Play Options: ☐ Save Messages ☐ Forward Messages ☐ Dial Source
☐ Confirm Delete ☐ Reply To Messages ☐ Skip Messages

Owner Send Options: ☐ Not Allowed do not allow the following options ☐ Urgent ☐ Future Delivery
☐ Confidential ☐ System List ☐ Outside Number ☐ Confirmation

CLASS OF SERVICE (COS) INFORMATION - (continued)

COS Name (number): _____ Description: _____

Owner Edit Options: ☐ Password ☐ Delete Message Sent ☐ Auto Attendant
☐ Greeting ☐ Mailbox State ☐ Notepad
☐ Name/Signature ☐ Personal Lists ☐ Transfer Out
☐ Notification ☐ Guest Mailboxes

Notification Settings

When will the system set Message Waiting? _____

Message Wait Set Sequence:(special use) _____

Message Wait Clear Sequence:(special use) _____

Event Handler Group: _____ (special use - default is set to 5)

Voice Notification Options: ☐ Password Required ☐ Message Pick-Up AllowedCascading: When will Cascade occur: _____ ☐ Urgent Only OptionCascade Message Save & Delete Options: ☐ Save as New ☐ Delete Original ☐ Save Original

Notification Interval: _____ (minutes) Notification Attempts: _____ (number of tries)

Pager Retries? Yes ☐ No ☐ Notification Script: _____
(special use - default is Pager12.CF)**Auto Attendant Settings**Call Options: ☐ Blind Transfer ☐ Call Screening ☐ Supervised Transfer ☐ Call Holding

Hold Interval: _____ (sec.) Hold Type: _____

Call Queing? Yes ☐ No ☐Screen Length: _____ (sec.) Play Original?: Yes ☐ No ☐

Transfer Prefix: _____

Transfer Postfix: _____

MENU INFORMATION -- Day

Complete one copy of this form for each Menu

Description: _____

Number: _____ Password: _____ Time Control: _____ (special use)

Instructions: _____
(special use - This is the Menu's number .VOX file name for prompts.)

Time Out: _____ (sec.) Max Retries: _____ (number of retries before hangup)

Keys Actions - including additional parameters: mailbox numbers, menu numbers, etc.

*	_____
#	_____
0	_____
1	_____
2	_____
3	_____
4	_____
5	_____
6	_____
7	_____
8	_____
9	_____

Prompt script for this mailbox - to be recorded via Administrator

MENU INFORMATION -- Night

Complete one copy of this form for each Menu

Description: _____

Number: _____ Password: _____ Time Control: _____ (special use)

Instructions: _____
(special use - This is the Menu's number .VOX file name for prompts.)

Time Out: _____ (sec.) Max Retries: _____ (number of retries before hangup)

Keys Actions - including additional parameters: mailbox numbers, menu numbers, etc.

* _____

0 _____

1 _____

2 _____

3 _____

4 _____

5 _____

6 _____

7 _____

8 _____

9 _____

Prompt script for this mailbox - to be recorded via Administrator

TIME CONTROL SETTINGS

Complete one copy of this for each Time Control

Time Control Name (Number): _____

Description: _____

System Searches for a match, sequentially starting at item 1

Item Number: _____

Start Time: _____ Mark active days for these hours:
 MO TU WE TH FR SA SU
 End Time: _____ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Action (the menu or mailbox calls are to go to):

Time Period Number: _____ (enter 1 to 9, for users to select time sensitive greetings)

Item Number: _____

Start Time: _____ Mark active days for these hours:
 MO TU WE TH FR SA SU
 End Time: _____ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Action (the menu or mailbox calls are to go to):

Time Period Number: _____ (enter 1 to 9, for users to select time sensitive greetings)

Item Number: _____

Start Time: _____ Mark active days for these hours:
 MO TU WE TH FR SA SU
 End Time: _____ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Action (the menu or mailbox calls are to go to):

Time Period Number: _____ (enter 1 to 9, for users to select time sensitive greetings)

Item Number: _____

Start Time: _____ Mark active days for these hours:
 MO TU WE TH FR SA SU
 End Time: _____ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Action (the menu or mailbox calls are to go to):

Time Period Number: _____ (enter 1 to 9, for users to select time sensitive greetings)

** Up to 10 items can be assigned to a Time Control - use additional sheets for more items.*

VOICE LINES SETTINGS

	Action To Perform When Calls Ring In	Additional Parameters
Line 1		
Line 2		
Line 3		
Line 4		
Line 5		
Line 6		
Line 7		
Line 8		



Optional Modules

This chapter is an instructional tool for system administrators and others who work with *PathFinder*. It describes how to install, set up, design, monitor, and maintain various *PathFinder* applications. While *PathFinder* is easy to use and administer, this manual will help you use *PathFinder* to its fullest potential

Introduction

PathFinder Hardware Components

All *PathFinder* hardware components should be listed in the Microsoft Windows® Hardware Compatibility List (HCL), which can be found on the Internet at <http://www.microsoft.com/hwtest/hcl>. The HCL is a database of hardware, classified by function.

Optional Software Modules

The following features are available only as optional software modules (sold separately) used to enhance the functionality of *PathFinder's* foundation software. Except for the Language Prompt Files, each of these modules is discussed in more detail in a separate section in this Appendix.

- ☐ Chalk Talk
- ☐ Fax Support
- ☐ Internet Fax Delivery
- ☐ *Onelook*
- ☐ *Onelook* + Point to Point Server
- ☐ Point to Point
- ☐ TeleQueue

Language Prompt Files -- allow languages other than English to be defined and used on *PathFinder*. When you purchase an alternate language module, all *PathFinder* prompts have been recorded in that language. One additional language is provided with each option.

To activate optional language prompts, simply activate your software key. No additional installation or configuration is required.

Chalk Talk

The *PathFinder* Chalk Talk module is an automated information system to assist schools with managing communications in a school system environment. This enhanced application also provides Advanced Voice Mail features such as:

- ❑ An auto attendant and unlimited menu options that eliminates the need to talk to a operator.
- ❑ An unlimited number of mailboxes that allows everyone on the system to have their own voice mail box with features such as: call screening, multiple greetings, message forwarding, and personal distribution lists.

Features & Specifications

Three major applications have been specifically designed for school systems: Outbound Calling, Homework Assignment Information, and Questions & Answer Sessions.

Benefits for Schools

Outbound Calling	
<i>Contact parents of absentee students ...</i>	Eliminates repeat phone calls. Automated outbound calling notifies parents of their child's absence and can inquire about the reason for the absence. Parents can leave a voice message responding to the inquire, which the school staff can later review. Chalk Talk automatically redials non-answered and busy numbers until the call is received.
<i>Notify students and parents of important school information ...</i>	Chalk Talk can send a pre-recorded message to everyone that needs to know important information (i.e., conferences, meetings, report cards). A unique confirmation code can be requested to ensure that the message was received. Chalk Talk then matches the response against the database information.

Outbound Calling	
<i>Notify employees and students of school closings or emergencies ...</i>	Chalk Talk automatically calls each student and faculty member with an official message announcing the closing and/or the state of emergency.
<i>Locate and schedule substitute teachers ...</i>	<p>Automates the daily task of finding substitute teachers. Just select the group list for the substitute teachers you need and let chalk Talk call the possible candidates. Once an interested teacher is found, Chalk Talk asks for a confirmation of acceptance, such as a teacher ID or a voice mail message. Chalk Talk will continue calling until all the positions are full. So, if you need three Math teachers, Chalk Talk will continue calling until three Math teachers accept the assignment.</p> <p>Chalk Talk also has the ability to run multiple lists simultaneously. If you need a History teacher and an English teacher on the same day, you can run both groups at the same time.</p>
Homework Assignment Information	
<i>Homework Hotline ...</i>	Students and parents can access the home work hotline for the latest assignments by entering the unique class ID number supplied to each class. Updating the assignments is as easy as recording a message and can be done by the teacher from any telephone.
<i>Student Activity Hotline ...</i>	A 24-hour hotline for student sporting events, clubs and after-school activities. Automated messaging can be kept accurate and complete by allowing the activity leader to personally update their own group using any telephone.
Question and Answer Sessions	
<i>Question and Answer session via voice mail ...</i>	These pre-recorded voice mail sessions allow parents and teachers to provide input and supply feedback at their convenience. Up to 99 questions can be asked, recorded, and reviewed at a later time.

Minimum Specifications

PC Requirements

- ☐ Intel Pentium-based PC with 32 MB RAM
- ☐ Minimum 4 GB hard drive
- ☐ 3.5" 1.44 MB disk drive
- ☐ Windows NT 4.0 or higher - with Service Pack 5
- ☐ CD ROM drive

System Requirements

- ☐ *PathFinder* release 8.2.4 or higher
- ☐ Chalk Talk activation on the software key

Outbound Calling (using Call Lists)

The outbound calling portion of the Chalk Talk application was designed to perform three major tasks:

- 1 -- Contacting parents of absentee students
- 2 -- Locating substitute teachers
- 3 -- Notifying employees of school closing, etc.

The basic underlying function of all three operations is: outbound dialing to a list of numbers. A Windows-based program allows you to set up or edit call lists, activate call lists by a specific group, and print call detail reports.

DATABASES -- A Master List of call out numbers is created for storing name, phone number, and ID information. Each entry is then assigned to a specific group(s): Students, Teachers, Staff, Substitute1, Substitue2, etc.

CALL LISTS -- When a call out task is needed, an existing list may be edited or a new list created. Members of the call list are selected from the Master List. Once the property values for a call list have been set up, then the list can be activated. Some functions (recording prompts), may be entered via the telephone. Multiple call lists can be activated at the same time.

REPORTS -- Reports are generated based on call list parameters set up for users and groups. Reports can also be printed and saved for future use.

Getting Started

In order to access the Call List feature by computer or telephone, configure the *PathFinder* system as described.

Call List Application Setup

1. From the *MAINT* application, select Configuration > System Settings.
2. Click the AUXILIARY TASKS button, then click ADD.
3. Type ***avOutDialManager.Main*** for the name.
4. Set the Event Group to 8, ignore the description field.
5. When finished, click ACCEPT, then click DONE.

After clicking on the LINE icon in the toolbar, complete the following steps for each line to be used for outbound dialing:

6. Highlight the Line to be used for outdialing and click EDIT, then click NEXT.
7. Enter **9** for the Event Handling group, then click FINISH.
8. Click OK when all lines are configured.

Call List Setup for Telephone Access

From the *MAINT* application:

1. Click the MENU icon on the toolbar.
2. Create or select a menu. Double-click or press select to edit the menu.
3. Select a Key Action to be used to activate/deactivate a call list through the telephone.
4. Select *"RunActiveVex."*
5. Enter *CallListPrompter.Main*
6. Click OK.
7. Click OK.
8. Click DONE.
9. Close the *MAINT* application when finished.

First-Time Programming Setup

Once the *PathFinder* system has been completely installed, a Call List Startup Wizard will automatically open to allow you to: **Set up a Group**. One or more Groups **MUST** be present before you can add call list members to the Master List, or activate a Call List for the *First Time*.

When the Startup Wizard welcome screen displays:

1. Click **Next** to continue. The second Wizard screen will display a brief overview of the Call List process.
2. Click **Next** to continue. The third Wizard screen will show "Students" in the First New Group field. (The group name may be changed here, if desired.)
3. To add the Students group, click **Next** to continue. The final Wizard screen will display:



4. Click **Next** to add another group (the third Wizard screen will return for additional entries),
-or-
5. Click **Finish** to accept the group(s) shown. The Call List Admin screen will display.

Starting Call List Admin

To manually start the Chalk Talk Desktop Admin application, select:

Start > Programs > PathFinder Voice Processing > Call List Admin

... the Call List Admin screen will display:

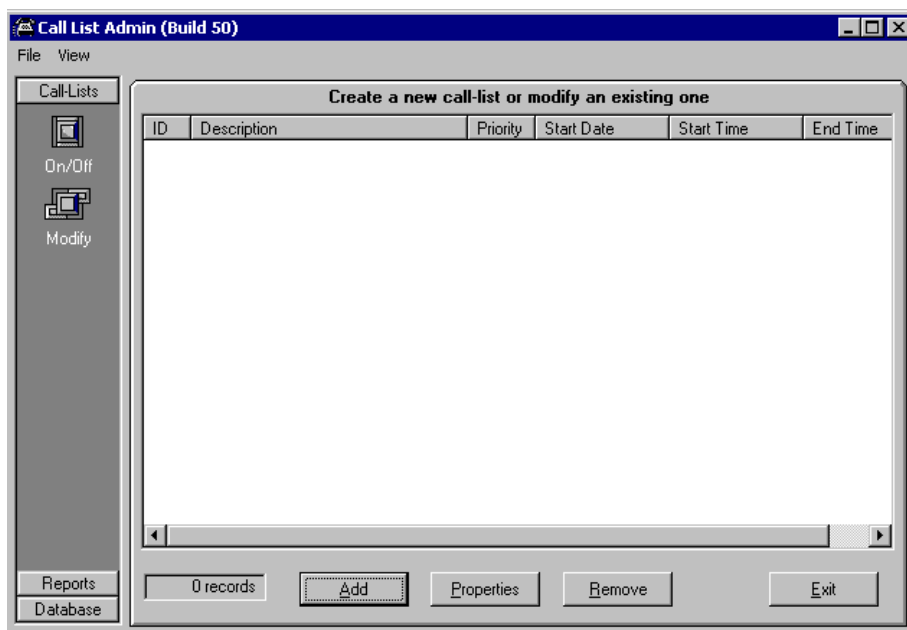


Figure C-1: Call List Admin Screen

DATA-ENTRY TIP ...

This “pushpin” icon appears on certain data-entry screens. Its function is to keep the current screen “open” until multiple entries are completed and accepted (OK, DONE, etc.).



side-view ... for single entries



top-view ... for multiple entries

Call List Process Flow

The following diagram shows the sequential order for setting up and activating a Call List:

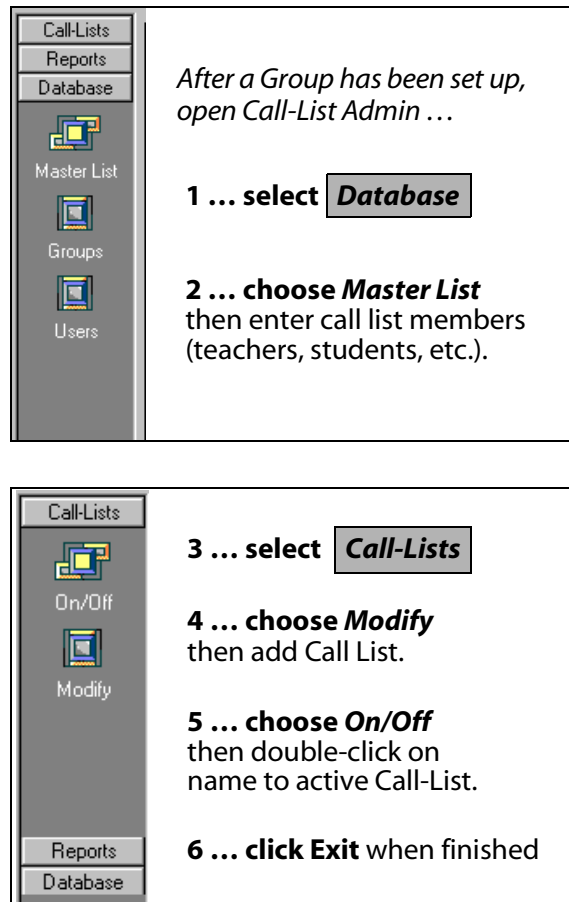


Figure C-2: Call List - Process Flow

Call List Options

Once the Call List Admin application has been programmed, the software will open to the most commonly used area, Call-Lists. From this screen you can start or terminate a call list, or modify the parameters.

To Activate/Deactivate a Call List:

1. Select CALL-LISTS, then click ON/OFF.

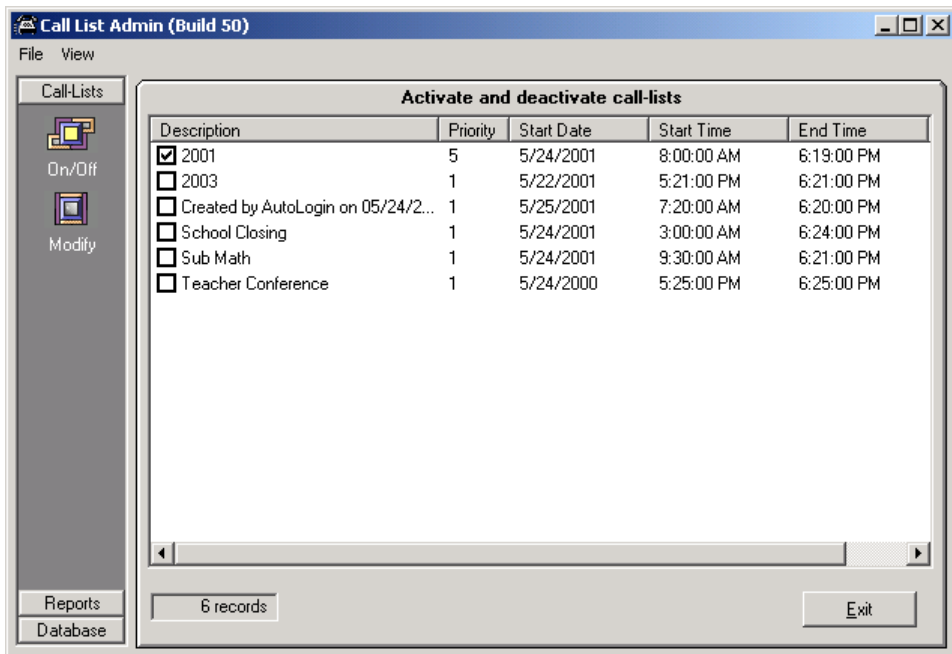


Figure C-3: Call List - Activation

2. To **activate** a call list, click the box next to the "call list name." A check mark will display ☒ to indicate the active status.
3. To **deactivate** a call list, click the box next to the "call list name." The check mark will disappear ☐ to indicate the inactive status.



An active Call List can not be modified. If you attempt to edit a list that is still active, a system message will display and remind you to "uncheck the item before editing or removing."

To Set Up or Modify a Call List:


1. Select CALL-LISTS, then select MODIFY.
 - a. To **modify** an existing Call List, highlight the desired list and click the PROPERTIES button (or double-click on the entry).
 - b. To **add** a new Call List, click the ADD button.

The Edit Call-List Entry screen will display:

Figure C-4: Edit Call-List Entries

3. Add or change the parameters for the Call List as described in the following field/definition table.

Description		» Name given to a Call List that identifies its purpose or function.
Priority		» Setting is used to select which list will be processed first. A High priority list processes before a Normal or Low priority (1-10).
Supervised Call		» System determines condition of call (answered, ringing, busy). For optimum results, use with Confirmation or Accept.
Blind Call	<input type="checkbox"/> Delay (secs)	» This call type strictly follows its program settings. For best results, set up calls to repeat, or use with Confirmation.
Introduction Prompt	<input type="checkbox"/> Times to play	» Number of times the prompt plays before continuing with the call flow. (Use a setting that will allow the system to detect calls being answered.)
Play Member ID	<input type="checkbox"/> Times to play	» Number of times the system will repeat an ID (ex: to report ID of absentee students).
Confirmation	<input type="checkbox"/> Use ID	» System queries for a DTMF response to confirm the caller is present (not an answering machine or wrong number).
	<input type="checkbox"/> Wait (secs)	» Length of time the system allows the person called to enter the ID.
Accept	<input type="checkbox"/> Max Attempts	» Maximum number of call backs allowed.
	<input type="checkbox"/> Stop after (x) accepts	» System calls out until this number of acceptances are received (ex: school needs 2 substitute teachers - calls will stop after receiving 2 acceptances).
	<input type="checkbox"/> Wait (secs)	» Length of time the system allows the called person to accept.
	<input type="checkbox"/> Accept keys	» Keys assigned for called party to use to acknowledge/accept message.
	<input type="checkbox"/> Max Attempts	» Maximum number of attempts called party has to enter specified Accept Key.

Message	<input type="checkbox"/> Optional <input type="checkbox"/> Mailbox <input type="checkbox"/> Max Length <input type="checkbox"/> Go to Q&A	» Person called is given a choice to leave a message. » Mailbox number to receive the voice mail messages. » Amount of time that a person called has to record a message. » System will play the designated question and answer survey. » A recorded prompt to be played when message has been delivered, and call is ready to disconnect.
Disconnect Prompt		
Start Date		» When to start calling: mmm/dd/yy
Run Time		» Time to start and stop calling: hh:mm (military format)
Delay (mins) Before Call Backs		» Period of time between attempts to recall a previously dialed number. Separate delays for each condition.
No Answer	<input type="checkbox"/> Max Attempts	
Busy	<input type="checkbox"/> Max Attempts	» Maximum number of call backs allowed.
No Confirm	<input type="checkbox"/> Max Attempts	
Protect	<input type="checkbox"/> Password <input type="checkbox"/> Re-enter	» Numeric password (1- 9 digits) to control access to a specified Call List. » Verification of the password entered.
Activate on completion		» Call List is automatically activated when the Call-List Entry screen is completed.
	<p>Select members to call - To select members from a group Master List. The number of members is unlimited.</p> <p>Load Template Call-List - To use template settings selected to create another call list.</p> <p>Change - To accept new settings associated with a Call List (reflects on Master List).</p> <p>Cancel - To ignore current information entered.</p>	

4. Click the SELECT MEMBERS TO CALL button to access the Master List from the Select Members screen.

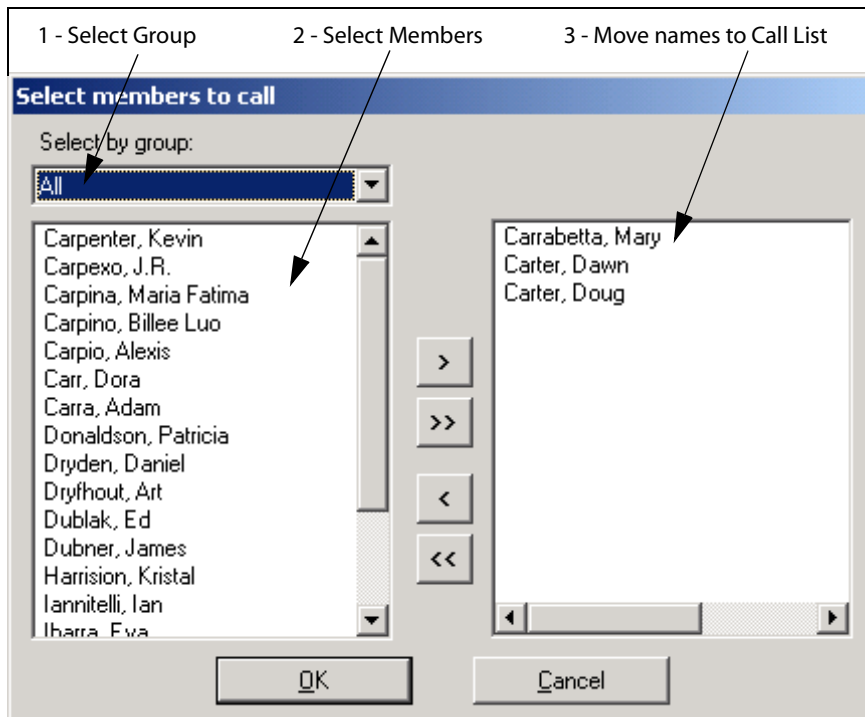


Figure C-5: Select Members to Call Screen

5. Click on the drop-down window to select the group. All names stored on the Master List display in the left pane.
6. Use the ARROW buttons to add or remove names in the Call List, then click OK.

7. To load (copy) the parameters assigned to an existing call list, click the LOAD TEMPLATE CALL-LIST button. The Load Template screen displays.

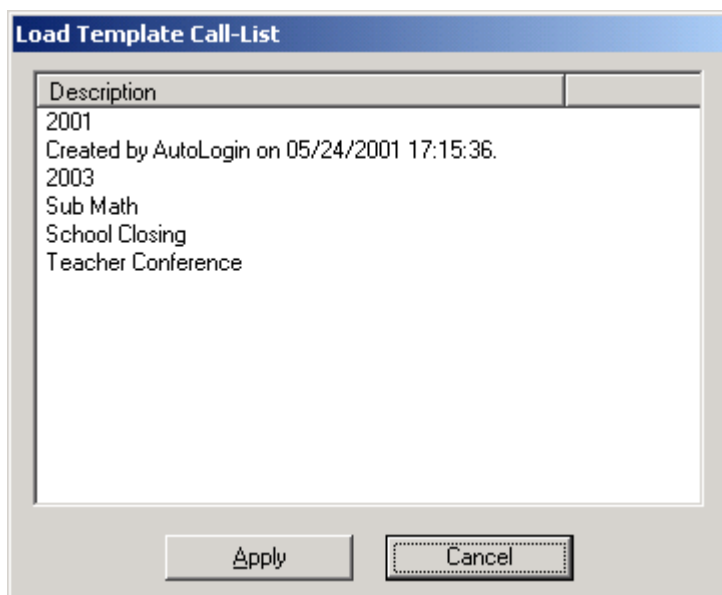
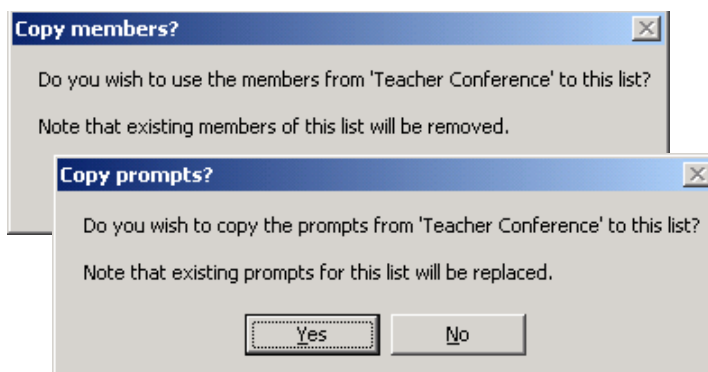


Figure C-6: Load Template

8. Select the Call List with the desired parameters, then click APPLY.
The following system messages will display to confirm your selection:



9. From the Edit Call Entry screen, click CHANGE when finished.
Follow the steps described earlier to activate the Call List.

To Record Prompts:

Place a call into *PathFinder* CallListPrompter.

Voice Prompts

All voice prompts should be stored in the ...\\VOX directory, and must be 4-digits in length. The following system prompts may be used or the numbers can be changed by the system administrator. Valid numbers are: (0)000 to (0)999 and (1)000 to (1)999.

The first digit indicates the language, 0 = English, 1=Spanish.

Table C-1: System Prompts

Prompt	Dialog
0010	This is the voice processing system calling to notify you.
0011	This is the absentee student system calling to notify you that your child was absent from school today.
0012	This is the emergency notification system calling to notify you that school will be closed today.
0013	This is the substitute teacher system calling to check your availability for being a substitute teacher.
0019	Thank you. Good-bye.
0020	To confirm that you have received this message, press 1.
0021	To confirm that you have received this message, enter your ID number.
0022	To confirm that you have received this message, enter your child's student ID.
0023	To accept this assignment, press 1; otherwise press 2.
0024	To leave a message in response to this notification, press 1.
0025	After the tone, start recording your message. When finished, you may press any key or hang-up.

Report Options

To create a detailed report showing the details and parameters required:

1. Select REPORTS.
2. Then select the type of call list needed for the report: Master List, Group List, or Call List. The selected screen displays.

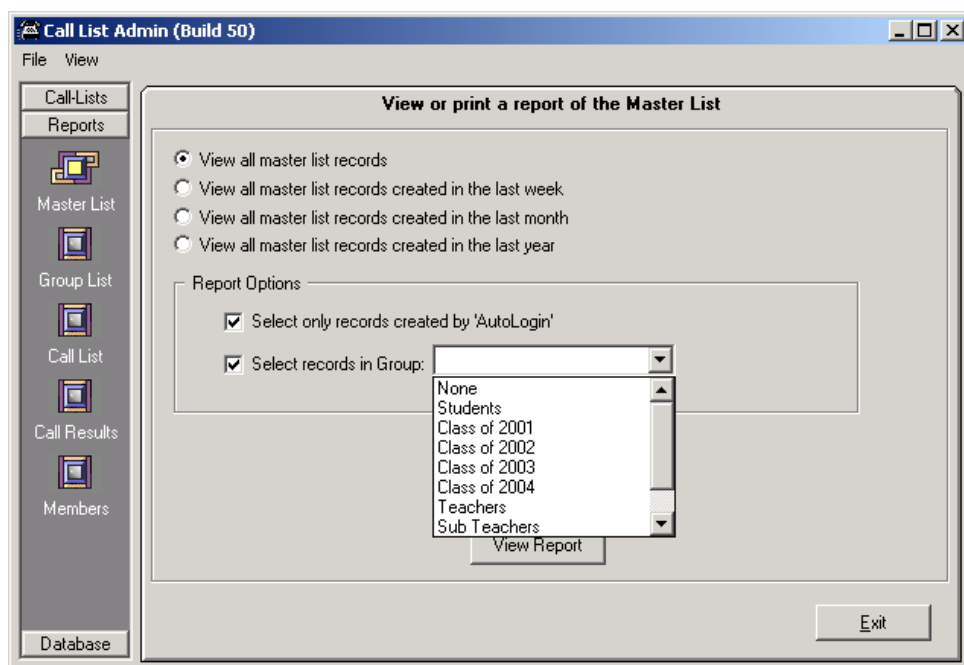
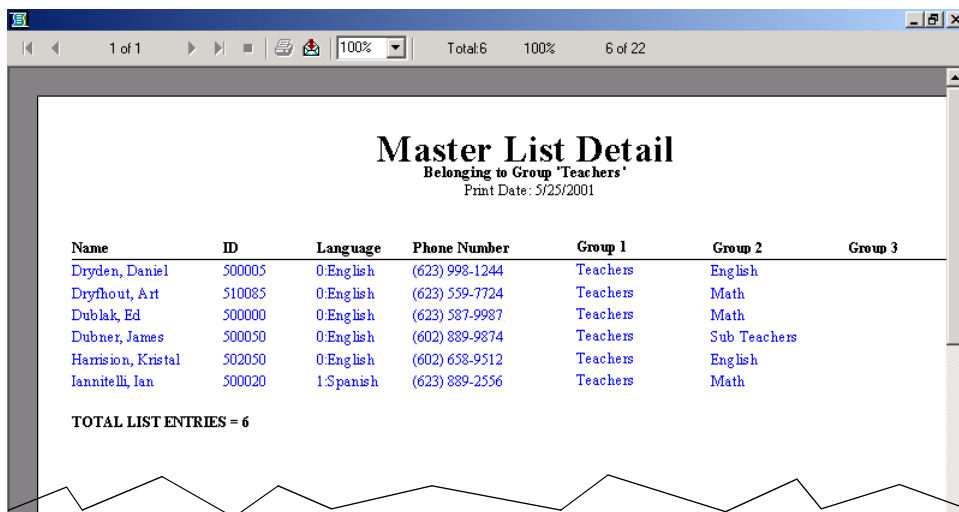


Figure C-7: Reports - Master List

3. Select the appropriate “view master list” for the time period needed:
 - ☐ all records
 - ☐ records created in the last week
 - ☐ records created in the last month
 - ☐ records created in the last year
4. To further define the report, choose one of the following:
 - ☐ *Select only records created by AutoLogin*
 - ☐ *Select records in Group* (groups display in drop-down box).
5. Click the VIEW REPORT button to display the details for the report parameters selected.

EXAMPLE -- View all master list records ... created by the person using the AutoLogin ... for a group called Teachers will produce this report:





The screenshot shows a web browser window with a report titled "Master List Detail". The report is for the group "Teachers" and was printed on 5/25/2001. It contains a table with 6 entries. The table has columns for Name, ID, Language, Phone Number, Group 1, Group 2, and Group 3. Below the table, it states "TOTAL LIST ENTRIES = 6".

Name	ID	Language	Phone Number	Group 1	Group 2	Group 3
Dryden, Daniel	500005	0:English	(623) 998-1244	Teachers	English	
Dryfhout, Art	510085	0:English	(623) 559-7724	Teachers	Math	
Dublak, Ed	500000	0:English	(623) 587-9987	Teachers	Math	
Dubner, James	500050	0:English	(602) 889-9874	Teachers	Sub Teachers	
Hamison, Kristal	502050	0:English	(602) 658-9512	Teachers	English	
Iannitelli, Ian	500020	1:Spanish	(623) 889-2556	Teachers	Math	

TOTAL LIST ENTRIES = 6

Figure C-8: Master List Detail Report

6.  Use the *envelope* icon to export the file to another application.
7.  Use the *printer* icon to print the selected report.

Database Options

The Database contains user and group parameters that are used to create and modify the Master List for Call Lists and Reports.

MASTER LIST -- To delete, add, or change Master List settings:

1. Click DATABASE.
2. Then click MASTER LIST, previously stored entries display.
3. Click the ADD button to create a new Master List entry, or the PROPERTIES button to edit an existing entry.

Call List Admin (Build 50)

File View

Call-Lists
Reports
Database

Master List
Groups
Users

Create/Edit/Remove entries for the Master List

Last Name	First Name	Phone Number	ID
Carter	Dawn	(480) 443-6000	100000
Carpio	Alexis	(602) 443-7889	100001
Carter			
Carpexo			
Carpina			
Donaldson			
Carr			
Carra			
Carabetta			
Wilma			
Carpino			
Carpenter			
User			
Dublak			
Dryden			
Iannitelli			
Dubner			
Ifeula			
Harrison			
Drythout	Art	(623) 559-7724	510085

Edit Master List Entry

First Name: Alexis
Last Name: Carpio
ID: 100001
Language: Spanish
Phone Number: (602) 443-7889

Group 1: Students
Group 2: Class of 2003
Group 3: None

Update Cancel

22 records Add Properties Remove Exit

Figure C-9: Database - Master List/Entry Screen



A GROUP must be added prior to adding a member to the Master List.

4. Complete the desired fields, then click the ADD button to create a new entry in the database,
-or-
Change the existing data entry and click UPDATE when finished.
(Each person can be a member of up to three groups.)

GROUPS -- To delete, add, or change Group settings:

1. Click the DATABASE button.
2. Then click GROUPS to bring up the list of groups. The Group List Entry dialog window displays.

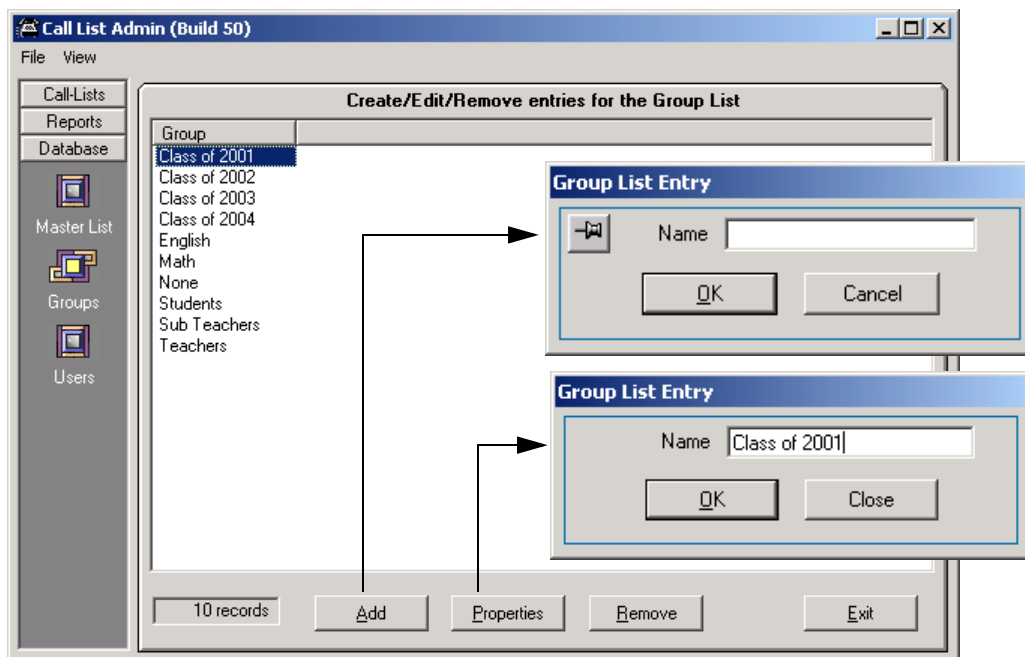


Figure C-10: Database - Group List Entry Screen

3. Add or change the name of the group, then click OK.

USERS -- A user must first be set up with admin privileges before they can select report parameters and generate call reports.

To add, change, or delete User settings:

1. Click the DATABASE button.
2. Then click USERS to bring up a list of valid users.
3. Click ADD or PROPERTIES, the Add User dialog window displays.

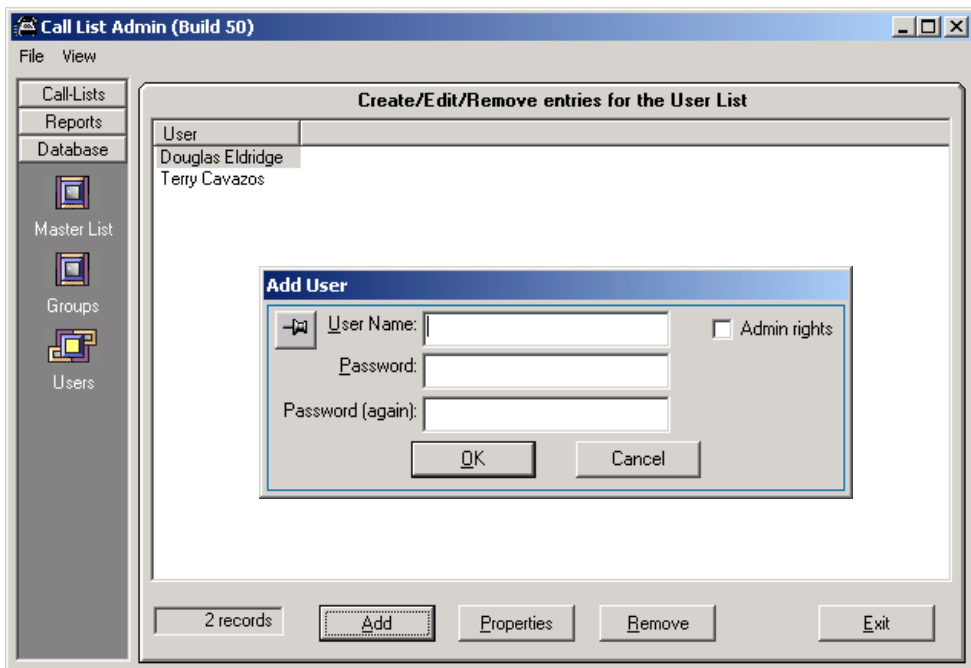


Figure C-11: Add User Screen

4. For a new user, type in the name and password. To allow the user to modify User List reports, click ADMIN RIGHTS.
-or-
For an existing user, make the necessary changes.
5. Click OK when finished.

Flow of Outbound Call

The following table describes common outbound call conditions and their responses:

Table C-2: Outbound Call Responses

Call Condition	System Response
Unable to connect to called number	Reschedule the call based on timer settings. <input type="checkbox"/> Delay in minutes before call back attempts. <input type="checkbox"/> Number of attempts <i>PathFinder</i> will call.
Introduction Prompt is defined	Play prompt the designated number of times to play.
Play ID is selected	<input type="checkbox"/> Play prompt (if present), then play ID (0011 or 1011). <input type="checkbox"/> Repeat as defined.
A Confirmation is required	<input type="checkbox"/> Play prompt and wait for digits designated number of seconds (0022 or 1022). <input type="checkbox"/> If digits are defined as "ID", then require caller to enter the ID matching this record.
Acceptance is indicated	<input type="checkbox"/> Play prompt and wait for acceptance (0013 or 1013). <input type="checkbox"/> If maximum number of accepts are met, then stop call out list.
Leave Message or caller selects to leave message	<input type="checkbox"/> Play prompt to leave message, then start recording. <input type="checkbox"/> End recording on disconnect or digit pressed (0025 or 1025). <input type="checkbox"/> Message should then be delivered to the mailbox indicated. <input type="checkbox"/> If a QA ID is defined, the system should branch the QA instead.
Leave Message can be optional or required	Play prompt and record response (0025-1025).
Disconnect Prompt	Play disconnect prompt (0019 or 1019).



When *PathFinder* is shut-down and restarted, the system continues outbound calling where it left off.

Homework Assignment Information

The *Homework Hotline* is a **PathFinder** application that allows each teacher to have a specific area for storing homework assignments. A teacher is assigned a unique ID (valid system mailbox) which allows a teacher to have a personal mailbox, as well as one for assignments. Students accessing the Homework mailbox WILL NOT be able to leave a message, this is an announcement only area.

Installation / Configuration

Getting Started

» » » *Start > Programs > PathFinder Voice Processing > Maint*

To use an “opening menu” when the Homework Hotline is activated, configure the system as follows:

1. Start the *MAINT* application.
2. Select Edit > Menus or click Menu icon in toolbar.
3. Select a MENU to use for Homework Hotline.
4. Then select the Key Action to start the Homework Hotline.
5. Select 1-9, #, or *.
For example:
 - a. To run the Homework Hotline, choose “6”
 - b. Select “Run ActiveVex”
 - c. Enter **AVHomework.Run**
 - d. Click OK
 - e. Click OK
 - f. Click DONE
7. Exit the *MAINT* application.
8. Record the greeting(s) for the Menu selected, such as: “...to listen to homework assignments, press 4”

When the application requests a “teacher ID,” the system is referring to the mailbox number assigned to that teacher for the callers to use when they call in for their assignments.

When a teacher wishes to record a new assignment, they access the system as a student, enter their teacher ID, then press [*]. The system asks for the password. The teacher enters their mailbox password followed by [#]. They can then listen to and re-record a new assignment. After recording a new assignment, they must press [4] to accept the assignment and make it available for the next caller.

Registry Variables are used to define specific parameters and how they will be applied by the Homework Hotline application.

To add and change these variables, use the *MAINT* application and select Configuration > Registry.



All variables and values are case sensitive.

- This variable defines what the application will run if a caller elects to “go back” or exit.

HomeworkRunCodeOnExit = Mn100

- To run “Mn 100”
- To go to mailbox 123, use “Vm123”
- To disconnect, use “Hg”

- This variable defines what the application will run if it detects an error. Similar to values used in “HomeworkRunCodeOnExit.”

HomeworkRunCodeOnError = Hg

- When the homework assignment is played, you can select whether to play back the date and time the assignment was recorded. The default setting is set to NO (do not play the date).

HomeworkPlayDate= Y, A, B, N,

Play Date settings are:

- Y or A = Plays date AFTER the assignment
- B = Plays date BEFORE the assignment
- N = NO, does not play a date

Edit Registry Item

Name: HomeworkPlayDate

Value: Y

Default: HomeworkPlayDate=N

Description: Play date for homework hotline

Type:

- ☐ Defaults
- ☐ Reloadable
- ☐ INI Parameter
- ☐ Write Empty

INI File Settings

INI File: .INI

Section: []

OK Cancel Help

Figure C-12: Edit Registry Item (MAINT App.)

Prompts used within the Homework Hotline are non-indexed prompt files, and are stored in the ...\\Homework\\Prompts directory. After shutting down *PathFinder*, you can use BoomBox to re-record any of the application prompts.

Table C-3: Homework Hotline (Default) Prompts

Prompt	Prompt Dialog
100	Thank you for calling the homework hotline. Please enter the teacher ID number.
101	Teacher ID...
102	...does not exist.
103	No assignment has been recorded for teacher ID...
104	To hear assignment again, press 1. To enter a new teacher ID, press #. To disconnect, press 9.
105	Please enter your teacher ID password followed by pressing #.
106	You have entered an invalid teacher password.
107	You are editing the homework assignment for ID...
108	To hear current assignment, press 1.
109	To record a new assignment, press 2.
110	To accept newly recorded assignment, press 4.
111	To go back and enter a new teacher ID, press #.
112	To disconnect, press 9.
113	After the tone, start recording the new assignment.
113	Press # to stop recording.
114	This assignment was recorded on...
115	The following is the current assignment.
116	The following is the newly recorded assignment.
117	New assignment has been accepted.

Question & Answer Sessions

The Question and Answer Sessions is a *PathFinder* application that allows the system to be configured for either voice or DTMF response questions. The responses are stored as a voice message for a specified mailbox. The QA module allows up to 99 questions.

Installation / Configuration



Since a questionnaire MUST be present to start the QA Admin application

... a sample questionnaire was set up using the following criteria:

"Ask for a voice name and a DTMF telephone number and then send results to mailbox 100."

Activating the QA Application

Select: Start > Programs > PathFinder Voice Processing > Q&A Admin

The following Questionnaires screen will display:

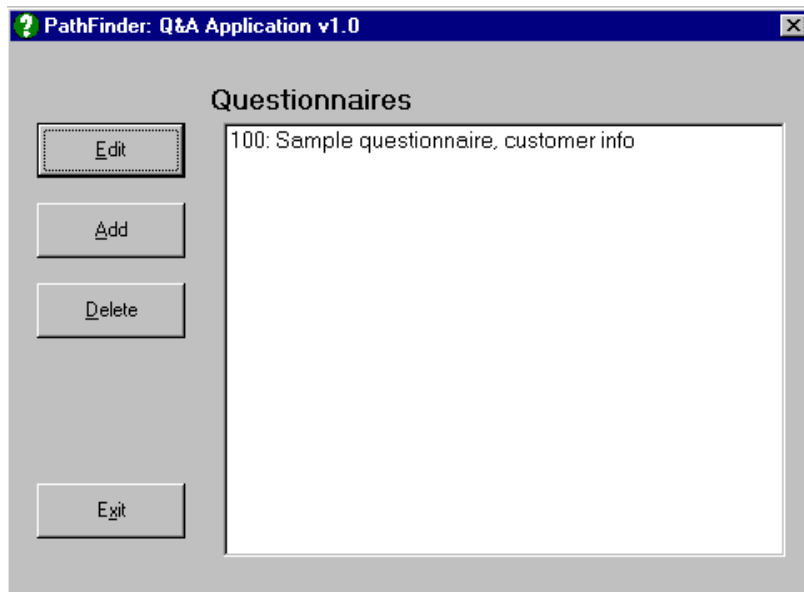


Figure C-13: Questionnaires Screen

To edit, add, or delete a questionnaire:

1. **To edit**--highlight the desired questionnaire, then click the EDIT button, -or-

Double-click on desired questionnaire ("100: Sample questionnaire..."). The Edit Q&A ID screen displays the details for that question:

Figure C-14: Q&A Application - Edit Q&A ID Screen

Field	Description
Description	This text is used by administration to identify the Q&A Session.
Password	The question prompts may be recorded via the telephone by pressing [*] during the first question. After pressing [*], the password must be entered to gain access.
Mailbox to Store Answer	This is the mailbox where the results should be stored.
Send Incomplete	Check this box if the system should deliver the responses to the mailbox, even if they are not complete.
Menu to Run on Exit	When the questionnaire is finished - this is the menu name that should be called.
Questions	A list of questions to ask. Double-click on a question to edit.

2. Double-click on question to edit parameters (Question 2 "Ask for telephone..."). The Edit Question screen displays detail for that question:

Figure C-15: Edit Question Screen

Field	Description
ID	Fixed field
Question Number	Fixed field
Description	Text/Action that describes the question.
Prompt	<p>What prompt should be played. Prompts should be stored in the <code>\PathFinder\QA\Prompts</code> directory. Usually the prompt name is made up of the Q&A ID followed by a hyphen, followed by the question number. You can specify any prompt located in the <code>\QA\Prompts</code> directory.</p> <p>If you want the recorded response to contain a header or leader that indicates what is to follow, you can record a small prompt in the file name "L" + Prompt Name.</p> <p>FOR EXAMPLE: If prompt "100-1.vox" contains the prompt "Please say your name after the tone," the prompt "L100-1.vox" would contain the prompt "Name" or "Answer 1". If the "L" prompt isn't present - it is not added to the resulting message.</p>

Field	Description
Type of Response	The system can either record voice or wait for DTMF digits.
Length of Response	When recording voice, this field shows the number of seconds recorded. For DTMF input, field shows the maximum number of digits.
Terminating Digit	For DTMF digits, you can specify the terminating digit if used.

3. Click OK when finished.
4. **To delete** -- highlight the desired questionnaire, then click the DELETE button. The item is removed from the list and can not be retrieved.
5. **To add** -- click the ADD button. The Create New Question screen displays.
 - ☐ Complete all necessary fields.
 - ☐ To add a question, click OK. The Create New Question screen displays.
 - ☐ Complete the question attributes, then click OK when finished.

After creating a questionnaire, the next step is to link it to a menu. Then place a call into the system and record the prompts.

Linking a Questionnaire to a Menu

For the Homework Hotline to be called from an "opening" menu, complete the following steps:

1. Start the *MAINT* application.
2. Select Edit > Menus.
3. Select the menu you want to be connected to the application.

4. Select the key on the menu (0-9, *, or #) that will start the Homework Hotline (or the digit to be dialed).

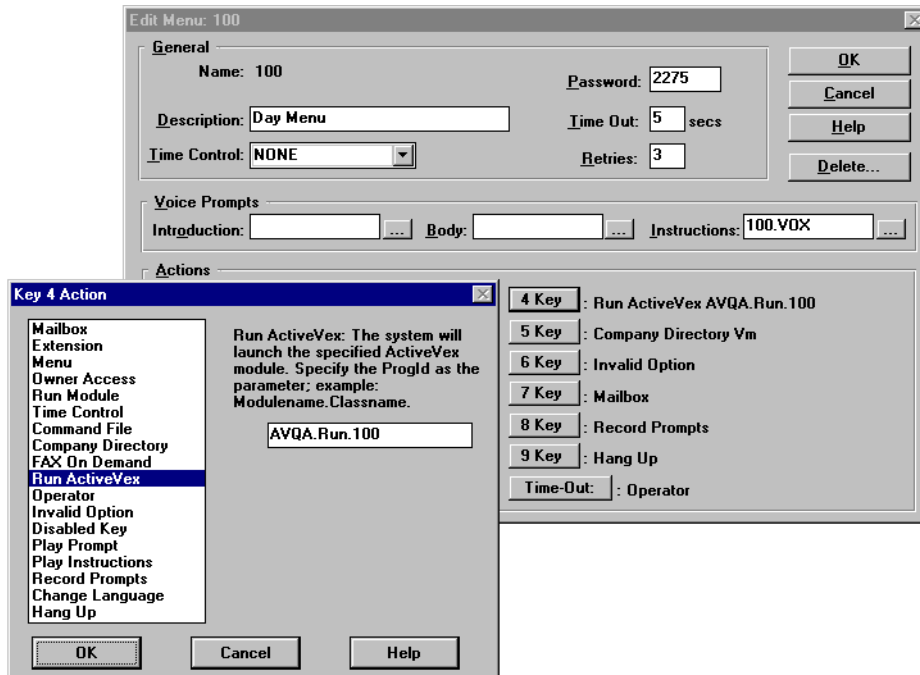


Figure C-16: Start Homework Hotline Screen (MAINT App.)

5. For Key Action, select "Run ActiveVex"
6. For the ProgId parameter, type **AVQA.Run.100** (where 100 is the questionnaire number).
7. Exit the *MAINT* application.

RECORDING PROMPTS

Once the questionnaire has been linked to a menu,

1. Restart the *PathFinder* program.
2. Call into the desired menu, then press the DTMF tone previously selected.



The first telephone call takes a few extra seconds while the system connects to the database.

- ☐ If a "question prompt" HAS NOT been recorded, then the system will prompt with " #115. "Press * during this prompt to gain access to record prompts."
 - ☐ If an "opening prompt" is present, you may still press [*] to access the Record Prompts option. The system will prompt you for the password followed by the [#] sign.
3. After gaining access, select from these prompts:
 - [1] ... to listen to current prompt
 - [2] ... to record a new prompt
 - [4] ... to accept new prompt
 - [7] ... to go to previous question
 - [8] ... to go to next question
 - [#] ... to go to another questionnaire
 - [9] ... to disconnect
 4. Once you record a new prompt, press [4] "to accept the prompt." (Otherwise, the prompt will not be installed or heard by callers.)

QUESTIONNAIRE PROMPTS

All prompts used within this application are non-indexed prompt files. They are all stored in the ...\\QA\\Prompts directory. After shutting down the *PathFinder* program, you can use BoomBox to re-record any of the application prompts.

Table C-4: Questionnaire Prompt Files

Number	Prompt Dialog
100.vox	Installation of this questionnaire is incomplete. To record prompts press *.
101.vox	Enter the password for questionnaire followed by pressing #.
102.vox	You are currently editing question number...
103.vox	To hear currently recorded question, press 1
104.vox	To record question, press 2
105.vox	To re-record question, press 2
106.vox	To accept newly recorded question, press 4
107.vox	To go back to previous question, press 7
108.vox	To go to next question, press 8
109.vox	To disconnect, press 9.
110.vox	To edit a new questionnaire, press #.
111.vox	Enter the questionnaire ID you wish to edit followed by #.
112.vox	That is an invalid password.
113.vox	That is an invalid questionnaire ID.
114.vox	You have selected an option currently not available. Please make another selection.
115.vox	Unable to access system file. Please contact your system administrator.
116.vox	Questionnaire was incomplete
117.vox	After the tone, record the new question. Press # to stop recording.
118.vox	Thank you for calling.

Conditions

- ❑ The QA module is not controlled via the key.
- ❑ The administrative module allows creating, deleting, and editing of the QA lists. The administration can either be done over the phone or via a GUI interface. A GUI interface is the preferred method.
- ❑ If the QA is accessed and the opening prompt has not been recorded, the system prompts for the password to record prompts.
- ❑ During the 1st prompt, if the [*] key is pressed, the system prompts for the password and then allows prompts to be edited.
- ❑ Logging is generated to allow for determining the QAs accessed.

Fax Support

PathFinder supports facsimile receipt and facsimile store-and-forward via the common facsimile cards. Parameters for the facsimile options are accessed via the MAINT application's *Configuration* menu.

Fax support is being used in many innovative ways in business. Fax Options expand the capability of *PathFinder* to handle both voice and facsimile messaging. Facsimile messaging also allows customers to request commonly-needed documents.

PathFinder supports facsimile receipt and facsimile store-and-forward via the common VFX/40ESC-plus cards. This allows for facsimile mailbox and Fax On Demand capabilities.

Fax Mail

Fax Mail allows callers to leave facsimile messages in a subscriber's mailbox. The subscriber can then retrieve the message at a later date and time, just like they can with a voice message. When a facsimile message needs to be printed, it can be directed to a local or remote facsimile machine. *PathFinder* will ask the subscriber to enter the facsimile number for printing.

Fax On Demand

Fax On Demand will send facsimile documents and information to any caller with access to a facsimile machine.

Basically, the Fax On Demand database functions as follows:

1. The system administrator sends facsimile documents into *PathFinder*.
2. The system administrator gives each document a document number and records a voice prompt describing the document.
3. Callers then can request each document by number or after hearing the description, and *PathFinder* sends each requested facsimile document.

Configuration

When Fax Options are enabled on *PathFinder*, you receive both Fax Mail and Fax On Demand applications. To configure *PathFinder* for facsimile options, you must do the following:

1. Purchase the facsimile option.
2. Install the facsimile hardware according to the Dialogic[®] documentation.

Facsimile Hardware

The first step in setting up any facsimile application is to install the necessary facsimile hardware. Please refer to the *Hardware Installation & Configuration* chapter in the *System Administrator Manual* for details on configuring facsimile hardware.

Fax On Demand

There are a number of things you must do in order to set up a facsimile application. The following steps illustrate what is required to set up a Fax On Demand application, but these steps also can be used when creating other facsimile applications or when enabling mailboxes to receive and store facsimile messages. These steps are outlined in the typical order that you should follow when setting up an application.

Fax Mail Application

Configuration of the Fax Mail application consists of the following elements:

1. Setting up facsimile support in MAINT
2. Create a key to run Fax On Demand
3. Build a facsimile database

Setting Up Facsimile Support in MAINT

After the facsimile card(s) and accompanying application software have been installed, you can configure the facsimile settings. From the MAINT application's *Configuration* menu, select **Fax Settings**. The following window displays:

FAX40 and FAX120 Settings

Setup and Administration

Administration password:

Event group to use when sending:

FAX ID for this system:

FAX On Demand

Maximum documents a caller can select:

Callers must call from FAX machine: ☐

FAX Send Parameters

File to send as cover sheet: .TIF

Retry attempts for failed sends:

Retry interval for failed sends: minutes

OK **Cancel** **Help**

Figure C-17: FAX Settings

Complete fields in this window as follows, then click **OK** when finished.

Table C-5: Fax Fields and Descriptions

Field	Description
Administration Password	Specify the password to be used for administrative access to the facsimile options (used when adding facsimile documents to the facsimile database).
Event Group to use when sending	Select the event group that processes outbound facsimiles. Event group 6 is commonly used for facsimile purposes. Make sure to assign a line to service this event group. Refer to the <i>Line Settings</i> chapter of the <i>System Administrator Manual</i> for more details.
FAX ID for this system	Enter an identifier for your company's facsimile system. This identifier is sent in the header of the facsimile document. Typically, this is the telephone number of the Fax On Demand system.
Allow voice attachments	If this option is selected, <i>PathFinder</i> will allow a caller to append a voice attachment to a facsimile message. If this option is deselected, <i>PathFinder</i> will simply accept the facsimile message without the option to append a voice message.
Maximum documents a caller can select	Enter the limit for the number of documents a caller can access during one phone call. Typically, this value is set to 3.
Callers must call from FAX machine	Select this option if you want to disable <i>PathFinder</i> 's outbound facsimile capabilities for Fax On Demand. Callers must call from a facsimile machine and will be prompted to turn control over to the facsimile machine to receive the facsimile, making the caller responsible for any long-distance charges.
File to send as cover sheet	Type the name of the file to be sent as a cover page with each facsimile document. The cover page file must be in TIF format and must exist on the <i>PathFinder</i> computer for this option to function properly.
Retry attempts for failed sends	Enter the number of times <i>PathFinder</i> should try to re-send a facsimile if the call results in a busy signal or no answer or disconnects in the middle of a send. A typical value is 3.
Retry interval for failed sends	Enter the number of minutes <i>PathFinder</i> should wait between retry attempts.

Create a Key to Run Fax On Demand

The next step is to create or modify a menu to include a Fax On Demand key. Usually, a front-end menu is used to provide facsimile support services so callers do not have to hunt through multiple menus looking for facsimile options.

At least one key must be assigned to the Fax On Demand option.



When setting the Fax On Demand key, indicate if the caller either can select any facsimile document or is restricted to defining a specific facsimile document.

To create a facsimile menu:

1. Click on the **Menu** button on the toolbar.
2. In the *Select Menu to Edit* window, click on the **Create** button and enter a name for the menu.
3. If you are using another menu as a template, select it from the drop-down list.
4. Click on **Create Menu**. This returns you to the *Select Menu to Edit* window.

- Highlight the menu you just created, then click on **Select**. The following window displays:

Edit Menu: FAXINFO

General

Name: FAXINFO Password: 718293

Description: Information Time Out: 3 secs

Time Control: NONE Retries: 3

Voice Prompts

Introduction: BALAGUNDA Body: FAXLIST Instructions: FAXINFO

Actions

* Key : Play Instructions	4 Key : FAX On Demand
# Key : Menu FAXINFO	5 Key : Invalid Option
0 Key : Operator	6 Key : Invalid Option
1 Key : FAX On Demand 100	7 Key : FAX On Demand ADMIN
2 Key : FAX On Demand 200	8 Key : Invalid Option
3 Key : FAX On Demand 300	9 Key : Hang Up
Max Retries : Hang Up	Time-Out : Hang Up

OK Cancel Help Delete...

Figure C-18: Edit Menu: FAX Window

- Enter a *Password*.
- Select a *Time Control* if one is to be used.
- Set the *Time Out* and (maximum) *Retries* options.
- Select or record **Introduction**, **Body**, and **Instructions** prompts.
- Set the **Key Actions**. At least one key must be assigned to **Fax On Demand**.



Refer to the Menus Settings chapter in the System Administrator Manual for details on the creation of menus.

11. The **Fax On Demand** key action will accept one of three parameters:

- ❑ **ADMIN:** Tells *PathFinder* that this key allows access to Fax On Demand administrator features. When this key is selected, *PathFinder* will ask for a password. When the correct password is entered, *PathFinder* will allow the administrator to add or remove documents to or from the Fax On Demand database.



One key action in the menu must be defined as ADMIN.

- ❑ **Fax Document Number:** If you enter a specific Fax On Demand document number in the field, *PathFinder* will transmit that facsimile document to the caller.
- ❑ If you enter no value in the field, *PathFinder* allows the caller to select the facsimile documents to be sent.

12. Click on **OK** when finished.

Build a Facsimile Database

Once *PathFinder* has been configured for facsimile support and a menu has been created for Fax On Demand, you are ready to start building a facsimile document database. A facsimile database is simply a group of documents in facsimile format. Two methods can be used to enter documents in the facsimile database:

- ❑ Traditional facsimile machine
- ❑ Computer-based facsimile software

Refer to [Facsimile Database](#) for more information.

Facsimile Database

Using a Traditional Facsimile Machine

To build a facsimile database using a traditional facsimile machine:

1. Make sure that *PathFinder* is online.
2. Call into *PathFinder* and access the facsimile menu you created earlier.
3. Press the key designated as the facsimile **ADMIN** option.

4. Press * and enter the ADMIN password. *PathFinder* plays the following menu: "Press one to create a new document; press two to delete a document; press three to change a document's description; press nine when finished."
5. Press 1 to add a new document to the facsimile database.
6. Enter a document number followed by the # key.
7. Record a description of the document, if desired.
8. Send the facsimile using manual send.

Repeat the process until all documents have been added to the database.

Using Facsimile Software

The use of a facsimile application to transmit facsimile documents directly from a PC to *PathFinder* is highly recommended, as the quality of such facsimile transmissions is much higher than when sending from a traditional facsimile machine.

To build a facsimile database using a software-based facsimile program:

1. Create the facsimile document using a word processor, page layout, or desktop publishing application.
2. Send the facsimile to *PathFinder* via the facsimile software. Most facsimile software programs support extended dialing strings. You can use this feature to set up a dialing string that sends the document and automatically assigns a document number, eliminating the need to enter this information manually. A typical dialing string is presented below:

9,XXX-XXXX, ,W,YYYY#,1,ZZZZZZZZ#, #,1

Where:

- 9 is any prefix digit or sequence of digits needed to gain access to the telephone system.
- Commas (,) are used in the dial string to pause dialing for two seconds each, giving the telephone system and *PathFinder* time to connect, and so on.

- ❑ XXX-XXXX is the phone number for the Fax On Demand system. If you are calling from a telephone extension and the Fax On Demand system also has an extension number, you can use the shorter extension number.
- ❑ W is the number assigned as the facsimile ADMIN key in the facsimile menu.
- ❑ YYYY is the ADMIN password.
- ❑ 1 is the menu option to create a new document.
- ❑ ZZZZZZZZ is the document number being assigned to this facsimile.
- ❑ The final 1 tells *PathFinder* to start accepting the facsimile transmission.

As an example, suppose *PathFinder* is at extension **400**, your facsimile ADMIN access key is **8**, and your facsimile ADMIN password is **9999**. You need to add to the facsimile database a new facsimile document and assign to it document number **1200**. A typical dialing string might look like this:

400,,8,9999#,1,1200#,#,1

A dialing prefix could be added to the front of the string if needed. You might find it handy to save this string as a number in your facsimile program's phone book. When you are ready to create a new facsimile document, simply edit the document number portion of the string to give each facsimile document a unique number.

Adding a Voice Description to a Facsimile Document

Once you have entered the document in the facsimile database, you can go back and add a brief description of the document.

To add a description to a document in the facsimile database:

1. Make sure that *PathFinder* is online.
2. Call into *PathFinder* and access the facsimile menu.
3. Press the key designated as the facsimile ADMIN option.

4. Press * and enter the ADMIN password. *PathFinder* plays the following menu: "Press one to create a new document; press two to delete a document; press three to change a document's description; press nine when finished."
5. Press 3 to change (add) a description.
6. Enter a document number followed by the # key. The current description is played, or *PathFinder* tells you if no description has been recorded.
7. Press # to record the description, then press # when finished.
8. Repeat the process, selecting a new facsimile document number, until all documents have been given a description.

Sample Fax On Demand Application

PathFinder can be configured to meet your specific Fax On Demand needs, whether as a sales tool, technical support aid, or as a source of general information. The following sample shows how Fax On Demand can be used to provide product information and technical support services. The figure below illustrates a typical *PathFinder* Fax On Demand menu setup for the Balagunda Corp.

The screenshot shows the 'Edit Menu: FAXINFO' window. It has a 'General' tab with fields for Name (FAXINFO), Password (718293), Description (Information), Time Out (3 secs), Time Control (NONE), and Retries (3). There are buttons for OK, Cancel, Help, and Delete... on the right. Below is the 'Voice Prompts' section with Introduction (BALAGUNDA), Body (FAXLIST), and Instructions (FAXINFO) fields. The 'Actions' section contains a grid of key assignments: * Key (Play Instructions), # Key (Menu FAXINFO), 0 Key (Operator), 1 Key (FAX On Demand 100), 2 Key (FAX On Demand 200), 3 Key (FAX On Demand 300), Max Retries (Hang Up), 4 Key (FAX On Demand), 5 Key (Invalid Option), 6 Key (Invalid Option), 7 Key (FAX On Demand ADMIN), 8 Key (Invalid Option), 9 Key (Hang Up), and Time Out (Hang Up).

Figure C-19: Edit Menu: Facsimile Menu Window

Balagunda Corp. has a dedicated telephone number assigned for their Fax On Demand service. Because the facsimile menu is the first one accessed when a caller reaches the facsimile service, *PathFinder* plays a greeting prompt (**Balagunda**), then a body prompt (**faxlist**) followed by instructions for using the Fax On Demand system (**faxinfo**). If the facsimile menu had been accessed from another menu, *PathFinder* would play only the body and instruction prompts, without a greeting prompt.

- ❑ The **1 Key** (1) sends facsimile directions on how to get to Balagunda's office (document #**100**).
- ❑ The **2 Key** (2) provides a list of tech support facsimile documents for the company's widget product (document #**200**).
- ❑ The **3 Key** (3) sends sales information on the widget product (document #**300**).
- ❑ The **4 Key** (4) is pressed if the caller knows the specific number of the desired facsimile document. After pressing 4, the caller is prompted to enter the appropriate facsimile document number, which is then transmitted back to the caller.
- ❑ The **7 Key** (7) is used to access the Fax On Demand administration options, and requires a password (**718293**).

Facsimile Mailboxes

Once *PathFinder* has been configured for facsimile support, facsimiles can be left in and retrieved from a *PathFinder* user's mailbox.

Leaving a Facsimile in a Mailbox

In order for a subscriber to receive facsimile messages in their mailbox, their Class of Service (COS) must be configured to allow facsimile messages. Refer to the *Class of Service* chapter in the *System Administrator Manual* for more information.

The option to prompt callers to leave a facsimile can be set as a COS feature (as set in the *Class of Service Message Type Menu* window). Again, refer to the *Class of Service* chapter in the *System Administrator Manual* for details.

An alternative method is to have the mailbox owner prompt the caller to leave a facsimile in the mailbox greeting. The key callers press to leave a facsimile is 3. A typical greeting might sound like this: "You've reached John. I'm away from my desk right now. To leave a voice message press one. To leave a facsimile, press three." After pressing 3, the caller is instructed on how to leave a facsimile message as described below.

To leave a facsimile message:

1. Access the desired party's voice mail.
2. Press 3 to leave a facsimile message.
3. Press # to leave a voice attachment to the facsimile (if the attachment option is available) or press * to skip the attachment.
4. Manually start the facsimile transmission.

Retrieving Facsimiles

Retrieving facsimiles from a mailbox is a *PathFinder* user function. Please refer to the *PathFinder User's Manual* for details on retrieving facsimiles.

Internet Fax Delivery

Internet Fax Delivery is an optional software component of *PathFinder*. With *Internet Fax Delivery* (IFD), two or more *PathFinder* voice processing systems can use the Internet to exchange facsimile documents for delivery. By using the Internet as a transport, the cost and quality of the transmission are improved. This is especially true for international facsimile deliveries.

Internet Fax Delivery uses standard facsimile machines to send facsimile documents into the *PathFinder* system. Upon receipt, the IFD module determines where the closest server is located. It transports the facsimile over the Internet to the destination server. The destination server then dials the local facsimile machine. A return receipt can then be sent back to the originating machine.

Internet Fax Delivery delivers standard facsimile messages using the Internet. It does not require any equipment attached to the facsimile machine and runs with other *PathFinder* applications, including voice mail and automated attendant.

Requirements

IFD requires the following before operation:

- ❑ *PathFinder* Release 6 or higher
- ❑ Dedicated Internet access (used for transport) to other *PathFinders*
- ❑ Facsimile support on each of the *PathFinder* systems (VFX/40s)
- ❑ *Internet Fax Delivery* activation code for the software controller key
- ❑ Facsimile Support activation code for the software controller key



All system components--both required equipment and optional equipment--should be listed in the Microsoft Windows® Hardware Compatibility List (HCL), which can be found on the Internet at <http://www.microsoft.com/hwtest/hcl>. The HCL is a database of hardware, classified by function.

Installation

Internet Fax Delivery should be installed from the *PathFinder* CD-ROM by selecting the **Internet Fax Delivery** component. If necessary, run the *PathFinder* installation program and select **Internet Fax Delivery**.

Once installed, *Internet Fax Delivery* is made up of the following files:

- ❑ **\\HELLONT\\IFD\\IFD_ADMN.EXE**: This is the administration and reporting program. IFD_ADMN allows a user to configure and administer the subscribers, classes of service, routing tables, etc.
- ❑ **\\HELLONT\\IFD\\IFD_SRV.EXE**: This is the facsimile delivery server. This program handles the inbound and outbound traffic. It should be placed in your startup group so that it always runs.
- ❑ **\\HELLONT\\VOX*.VOX**: Contains voice prompts.

- ❑ **\\HELLONT\MODULES\A\IFD.SUB**: This is the facsimile delivery module. This module communicates with inbound callers, and receives and delivers facsimiles.

Setup & Configuration

Once the software is installed, select from the *Start* menu Programs > Hello! Voice Processing > Internet Fax Admin.

Do not run the Internet Fax Server yet. If the Fax Server is running, select from the menu bar **File** > **Shutdown Server** to exit the server.

Running IFD_ADMN.EXE will cause in the following window to display:

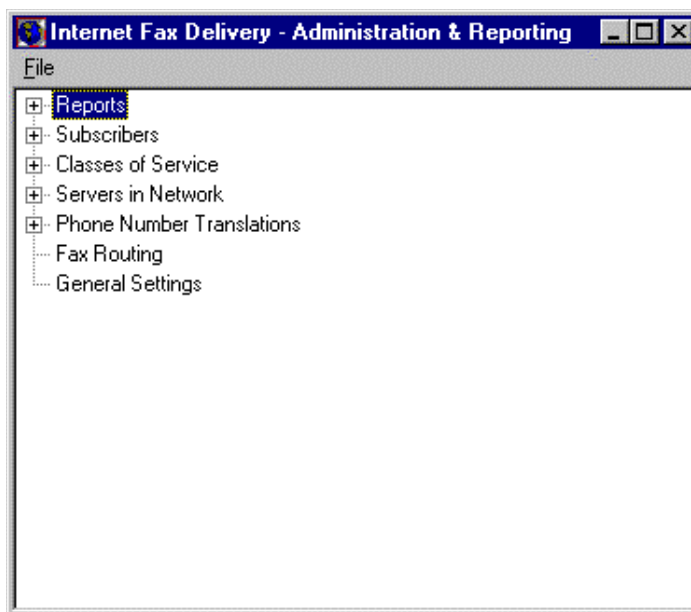


Figure C-20: Internet Fax Delivery - Administration & Reporting Window

Settings Guidelines

- ❑ Both the *Fax Delivery Server* settings and the *Voice System Server* settings should use the same local machine name.
- ❑ *Fax Delivery* should use IP Port **24**, while *Voice System* will use IP Port **23**.
- ❑ *Logging* settings control how much information is logged and if it is logged to a file.
- ❑ *Transport* settings control frequency and retry interval.
- ❑ The defaults are usually the correct setting.

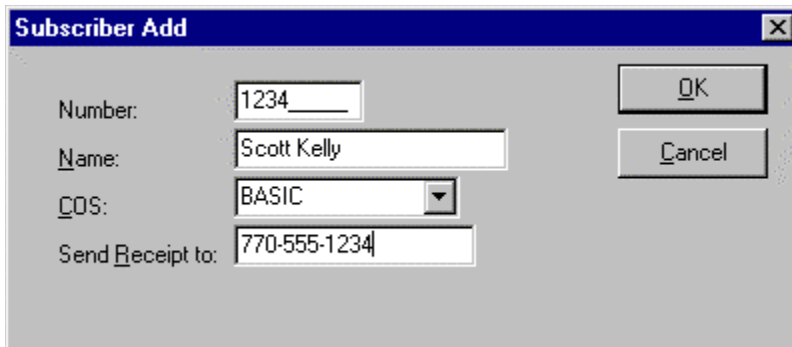
Reports

The first item is **Reports**. Double-clicking on “Reports” results in the tree expanding to show two more items. IFD is shipped with two reports: “Usage” and “Settings”. These reports provide basic information about IFD.

Subscribers

The second main item is **Subscribers**. Before users can call in and leave facsimile messages, you must add the subscribers, as follows:

1. Double-click on **Subscribers** to expand the tree.
2. Click on **Add Subscribers** to add a new subscriber. The following window will display:



The screenshot shows a Windows-style dialog box titled "Subscriber Add". It has a blue title bar with a close button (X) on the right. The dialog contains four labeled input fields arranged vertically on the left: "Number:" with the text "1234", "Name:" with the text "Scott Kelly", "COS:" with a dropdown menu currently showing "BASIC", and "Send Receipt to:" with the text "770-555-1234". To the right of these fields are two buttons: "OK" and "Cancel".

Figure C-21: Subscriber Add Window

3. Enter the information about the new user.
Number -- This field indicates the subscriber number that will be entered by the originating caller.
Name -- This field indicates the subscriber's name.
COS -- This field is used for billing. If you have not yet added the desired COS, type the name of the COS that you will create after you add this subscriber.
Send Receipt to -- Type the phone number where a return receipt should be delivered. If a receipt should not be sent, then leave this field blank.
4. Continue to add subscribers to build up the list. You may go back and edit or delete a subscriber by double-clicking on subscriber entries.

Class of Service

After entering the subscribers, click on **Classes of Service** to add a new COS. Note that classes of service only control pricing.

Servers in Network

After administering Classes of Service, click on **Servers in Network** to list the other *PathFinder* machines where you can send facsimiles. For *Servers in Network*, you should add entries for each of the machines with which this one will be communicating. Also, add a server named `Default` that points to your current machine. This setting will be used if IFD cannot find a remote server.

All servers should use IP Port 24 unless that port is unavailable.

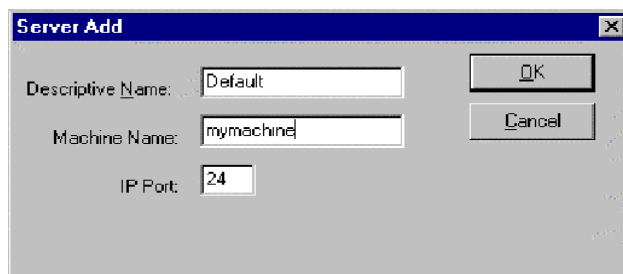


Figure C-22: Server Add Window



The Servers in Network list does not specify when you send the facsimiles. Those settings are controlled in the Fax Routing window.

Phone Number Translations

This item list the translations that should be done on facsimiles being delivered by this server. For example, if this server is located in Holland and it will be handling facsimiles originating from the US, then the phone numbers will be prefixed by 01131. But when people in Holland dial the number locally, they do not need the 01131.

Therefore, the 01131 should be stripped off for local dialers only. You can do that by adding a translation, as shown in the following window:

The screenshot shows a Windows-style dialog box titled "Add Translation". It has a light gray background and a blue title bar. Inside the dialog, there are three text input fields arranged vertically. The first field is labeled "Description:" and contains the text "Strip US internation". The second field is labeled "Translation from:" and contains the text "01131". The third field is labeled "to:" and is currently empty. To the right of these fields are two buttons: "OK" and "Cancel".

Figure C-23: Add Translation Window

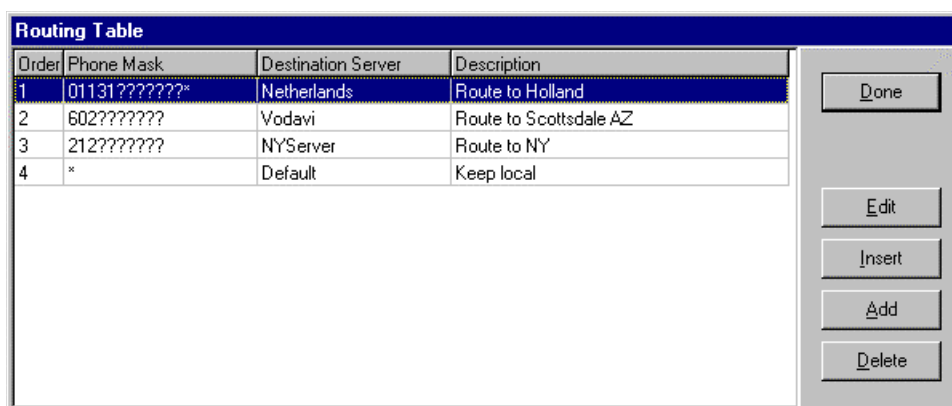


When performing local dialing, the system uses the dialing prefixes specified in MAINT.

You can include a new prefix if necessary. Only include numbers in the translations.

Facsimile Routing

This item lets you edit a table that indicates where facsimile messages should be routed. The destination phone number is used to determine which server should be used.

The image shows a software window titled "Routing Table". It contains a table with four columns: "Order", "Phone Mask", "Destination Server", and "Description". The table has four rows of data. To the right of the table is a vertical stack of five buttons: "Done", "Edit", "Insert", "Add", and "Delete".

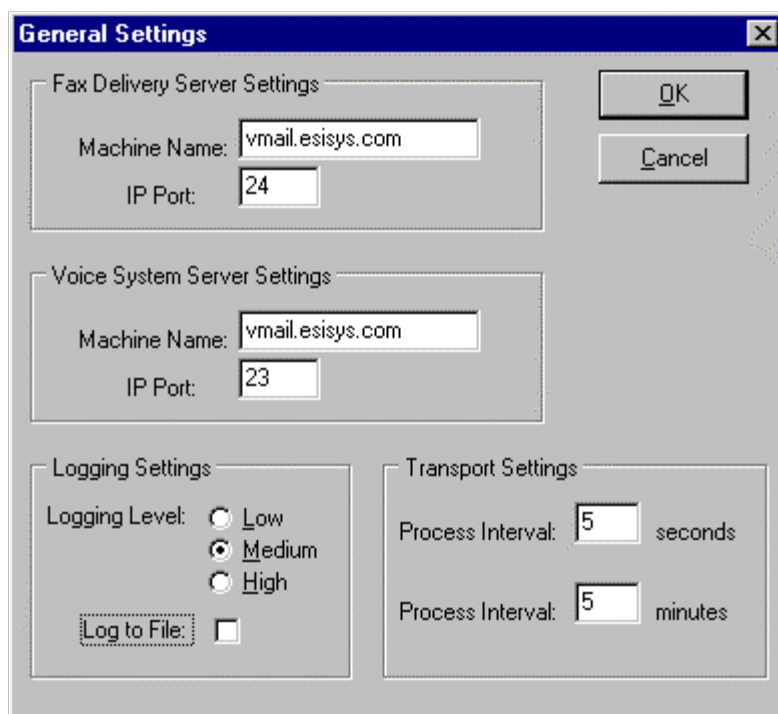
Order	Phone Mask	Destination Server	Description
1	01131??????*	Netherlands	Route to Holland
2	602???????	Vodavi	Route to Scottsdale AZ
3	212???????	NYServer	Route to NY
4	*	Default	Keep local

Figure C-24: Routing Table Window

Special characters * and ? are used to indicate wildcards.

- ❑ The * key matches no digits as well as one or more digits.
- ❑ The ? key matches a single digit.
- ❑ The digits 0 through 9 are matched explicitly.

General Settings



The image shows a 'General Settings' dialog box with a blue title bar and a close button (X). It contains four main sections: 'Fax Delivery Server Settings', 'Voice System Server Settings', 'Logging Settings', and 'Transport Settings'. The 'Fax Delivery Server Settings' section has 'Machine Name' set to 'vmail.esisys.com' and 'IP Port' set to '24'. The 'Voice System Server Settings' section has 'Machine Name' set to 'vmail.esisys.com' and 'IP Port' set to '23'. The 'Logging Settings' section has 'Logging Level' with radio buttons for 'Low', 'Medium' (selected), and 'High', and a 'Log to File' checkbox that is unchecked. The 'Transport Settings' section has two 'Process Interval' fields, both set to '5', with units of 'seconds' and 'minutes' respectively. 'OK' and 'Cancel' buttons are located on the right side of the dialog.

Section	Field	Value
Fax Delivery Server Settings	Machine Name	vmail.esisys.com
	IP Port	24
Voice System Server Settings	Machine Name	vmail.esisys.com
	IP Port	23
Logging Settings	Logging Level	Medium
	Log to File	Unchecked
Transport Settings	Process Interval (seconds)	5
	Process Interval (minutes)	5

Figure C-25: General Settings Window

Facsimile Delivery Module Access

The next step is to give callers access to the facsimile delivery module. This is usually done using a menu key off of a main or secondary menu.

To administer facsimile delivery module access, please follow these steps:

1. Run MAINT.
2. Select Edit > Menus from the menu bar.
3. Select a menu from the list that will be used to give callers access to IFD.

4. Double-click on **Key 4**. The following window displays:

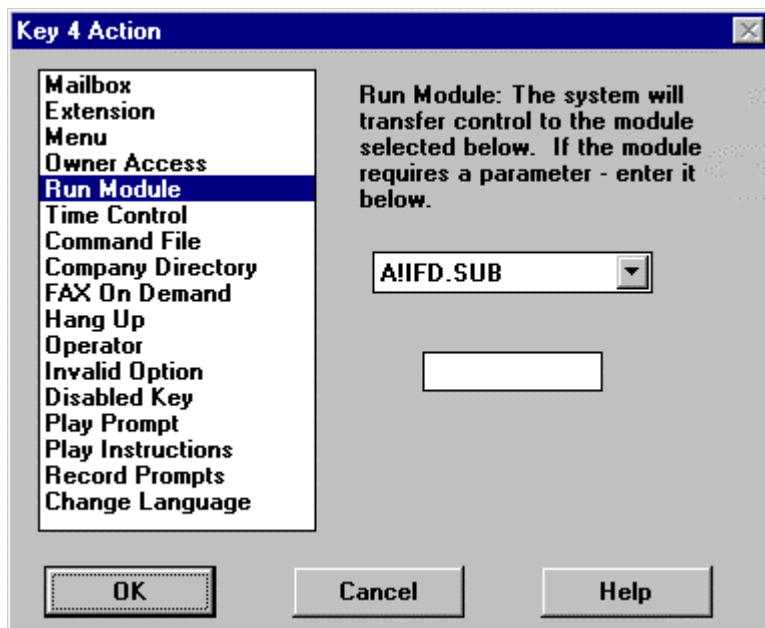


Figure C-26: Key 4 Action Window

5. Select **Run Module**
6. Select the module name **AIIFD.SUB**, then choose one of the following situations:
 - ❑ If you want the system to prompt for a subscriber number, leave the *Parameter* field blank.
 - ❑ If you wish to predefine the subscriber number, type it in the *Parameter* field.

Usage

The server is started by running the IFD_SRV.EXE program. The following window displays:

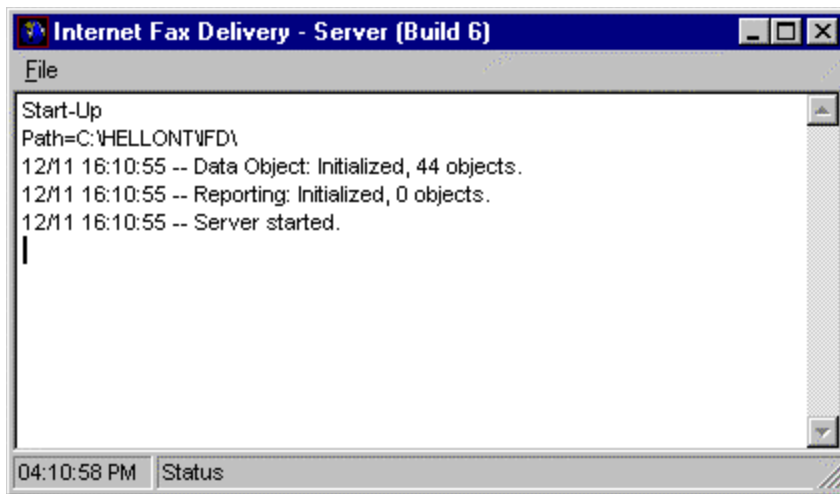


Figure C-27: Internet Fax Delivery - Server Window

As requests are processed by the server, the log information will appear. The only operation available is to shut down the server.

Start a Facsimile Transmission

To start a facsimile transmission, perform the following steps:

1. Call into the *PathFinder* system from a facsimile machine.
2. Access the menu defined above.
3. Press the key associated with the A!IFD.SUB module.
4. Enter a subscriber number (if prompted).
5. Enter a destination number.
6. When prompted press **Start** on your facsimile machine.

After the system has delivered the facsimile, it will send a return receipt back to the number indicated in the subscriber record.

Troubleshooting

Depending on the problem, use the log files associated with *PathFinder* and IFD to determine the problem. Bad IP addresses are the most typical problems you will encounter.

Use *Telnet* and *Ping* to connect to remote systems and verify addresses. Refer to *"Is the server name correct?"* on page C-72 for more information.

Onelook (Unified Messaging)

Onelook is *PathFinder*'s unified messaging solution. With *Onelook*, all of your messages (voice, facsimile, and e-mail) can be retrieved from your desktop.

Onelook gives you the ability to send and receive voice mail messages through Microsoft *Exchange* or Microsoft *Outlook*. Instead of having to dial into a phone system to retrieve messages, the messages will appear in your desktop Inbox. You can archive messages and keep them indefinitely without having to keep them in your voice mailbox.

With *Onelook*, you can also read facsimile messages that were received in your voice mailbox through *Onelook*. *Onelook* has full synchronization, which means that when you mark messages as read in your desktop Inbox they will be marked as read in your voice mailbox as well.

In addition, if you delete a message in your Inbox, it deletes it from your voice mailbox automatically.



In order to received facsimile messages via Onelook, you must have the facsimile option enabled within Onelook.

System Requirements



All system components--both required equipment and optional equipment--should be listed in the Microsoft Windows® Hardware Compatibility List (HCL), which can be found on the Internet at <http://www.microsoft.com/hwtest/hcl>. The HCL is a database of hardware, classified by function.

Server

These are the minimum requirements for the server PC to run *Onelook*:

- ☐ *PathFinder* Release 6 or higher
- ☐ *Onelook* capability in the software key
- ☐ *Onelook + Point to Point Server* active on your Windows NT-based voice processing computer
- ☐ Valid IP addresses
- ☐ Ability to run *Ping* between the clients and the server
- ☐ Network:
 - Network Interface Card
 - LAN with TCP/IP protocol running

Client

These are the minimum requirements for the client PC to run *Onelook*:

- ☐ Windows 95, 98, or later
- ☐ Microsoft *Outlook* or Microsoft *Exchange* Version 5.0 or later
- ☐ 16 megabytes of RAM or greater
- ☐ 10 megabytes of free hard drive space
- ☐ Sound-card
- ☐ Speakers
- ☐ Microphone
- ☐ Network:
 - Network Interface Card (compatible with operating system)
 - TCP/IP connectivity to *Onelook* server
 - TCP/IP Networking Installed

Synchronization in Onelook

Onelook includes a synchronization feature that ensures that your Inbox and voice mailbox are always synchronized. Whenever you delete a message from your voice mailbox it will also be deleted from your Inbox. Likewise, if you delete a message from your Inbox, the message will also be deleted from your voice mailbox.

However, it should be noted that while messages deleted from your Inbox are immediately synchronized, any messages that you delete from your voice mailbox are only deleted from your Inbox once you restart *Outlook* or *Exchange*.



Read messages in Inbox are never synchronized. This means that if you listen to a message in Inbox and then delete it through voice mail, that message will not be deleted from Inbox. To completely remove the message (from both your voice mail and Inbox), you must manually delete it from Inbox and the voice mailbox.

Onelook messages are deleted from your voice mail if they are moved to the Deleted Items folder. You will not be able to recover the deleted message in your voice mailbox, but if the message was deleted by accident, you will be able to move it from the Deleted Items folder back to another folder.

Marking a message as either “read” or “unread” in *Exchange* or *Outlook* will cause the message to be marked as, respectively, “saved” or “new” in your mailbox.

Installation & Configuration

There are two parts to the *Onelook* installation process: the server installation and the client installation. The system administrator will install the server portion of *Onelook*, while the end user will need to install only the client portion.

Server PC

Onelook software is installed along with your *PathFinder* software. You also must configure the *Onelook* + Point to Point server before using *Onelook*.

Installation

To install *Onelook*, run SETUP.EXE as described in the *System Administrator Manual*. If *Onelook + Point to Point Server* is already installed, then installation is not required.



If you have Point to Point messaging installed, you do not need to perform the server installation described in this section. Do not try to install the server portion of Onelook on a system that already has Point to Point messaging installed.

Configuring the Onelook + Point to Point Server

1. Use notepad.exe to edit the \HELLONT\NTMAIL.INI file.
2. Make sure the following settings are correct:
 - ☐ [HELLONT]
 - ☐ LocalMessagesDirectory=C:\HELLONT\messages
 - ☐ TelnetPort=23
 - ☐ login=HELLONT
 - ☐ password=hnttelnet
3. Place a shortcut to \HELLONT\NTMAIL.EXE in your Start-Up group.

Client PC

As part of *Onelook* client installation, the following components will be installed:

- ☐ Voice Form server
- ☐ Facsimile Form server

Installation

To install *Onelook* on a client PC:

1. Make sure all programs are closed.
2. Run the program in the *ONELOOK CLIENT INSTALL **directory***. The name of this program could vary depending on what version of *Onelook Client* you have on your CD.

3. After the installation program has finished copying the program files to your hard drive, the following window displays.

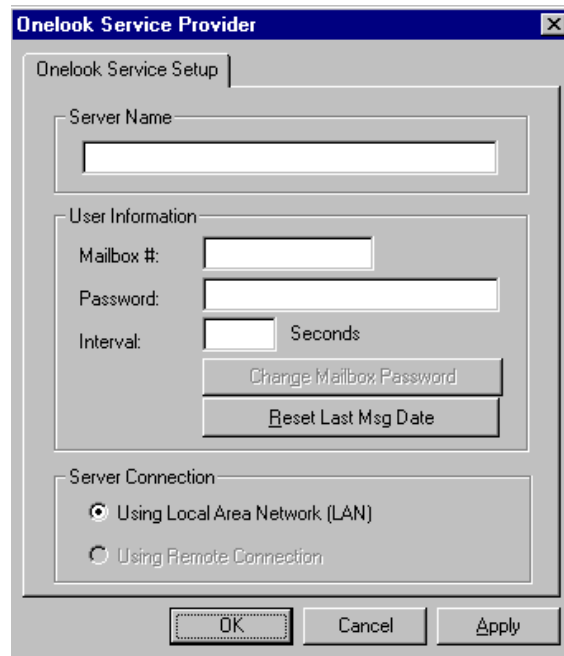
The image shows a Windows-style dialog box titled "Onelook Service Provider" with a standard close button (X) in the top right corner. The dialog has a tabbed interface with the "Onelook Service Setup" tab selected. It is divided into three main sections: "Server Name" with a single text input field; "User Information" which contains fields for "Mailbox #:", "Password:", and "Interval:" followed by a "Seconds" label, and two buttons labeled "Change Mailbox Password" and "Reset Last Msg Date"; and "Server Connection" which has two radio button options: "Using Local Area Network (LAN)" (which is selected) and "Using Remote Connection". At the bottom of the dialog are three buttons: "OK", "Cancel", and "Apply".

Figure C-28: Onelook Service Provider Window (blank)

4. Fill in the *Server Name* field. You can get this information from your Network Administrator. This is either a name served network system name (e.g., xyz . com), or a numeric H-port IP address (e.g., 192 . 6 . 1 . 50).
5. In the User Information section, enter your mailbox number. This is the same as your voice mail number. For example, extension 1256 has the mailbox number 1256.
6. Next, enter your password. This is the same as your voice mail password (for example, 1234).
7. Enter an interval time. The interval time is the delay between successive checks by *Onelook* for new messages.

It is recommended that you choose a value of 300 seconds or higher. If you set the interval too small, your system will check for mail all the time and will slow down significantly.

8. When you have entered the required information, the *Onelook Service Provider* window displays. It should look something like this:

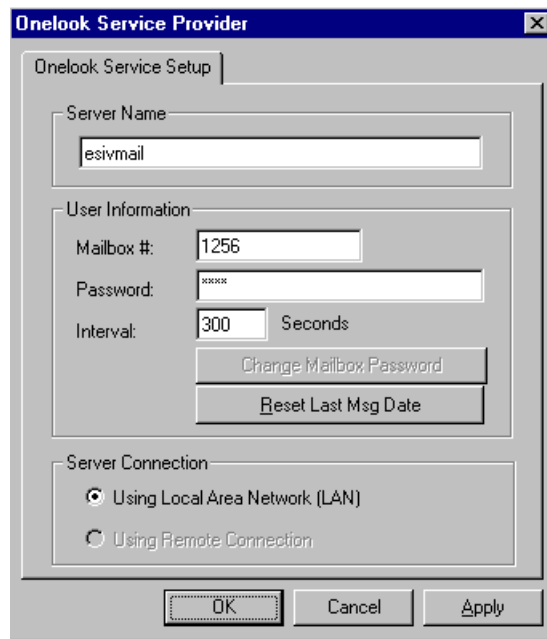


Figure C-29: Onelook Service Provider Window (complete)

9. Click on **OK** to close the *Onelook Service Provider* window.

Configuration

1. After the setup program is complete, open *Outlook* (the **Inbox** icon on your desktop). If you are only running *Exchange* and not *Outlook*, you can skip this step.
2. From the *Tools* menu, select **Options**.

3. In the *Options* window, click on the **E-mail** button. Be sure that the **Onelook Service Provider** option is selected.

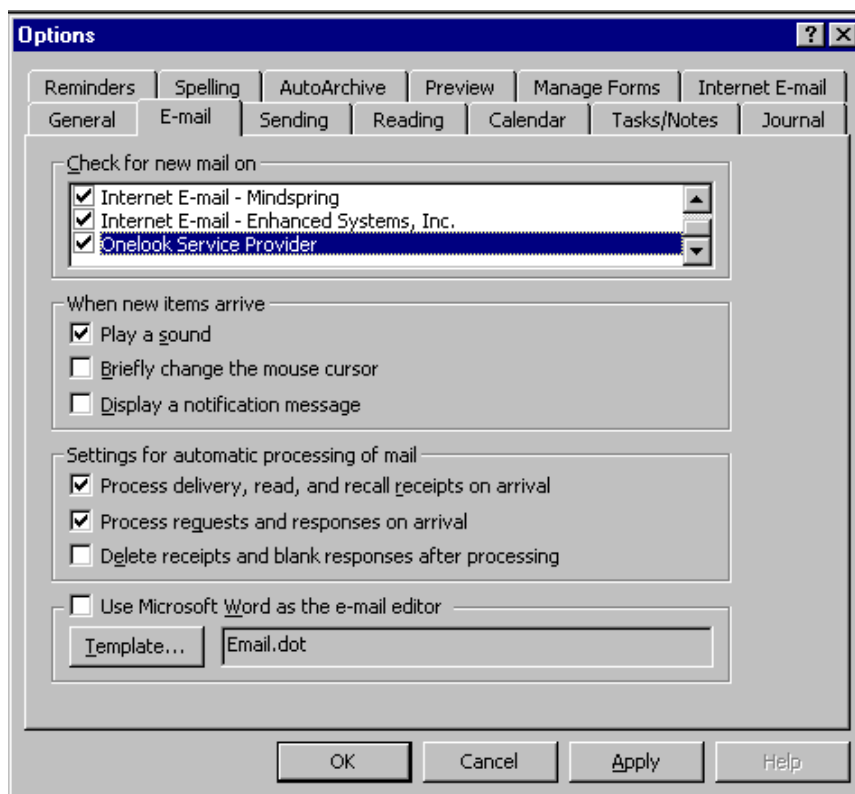


Figure C-30: Outlook Options Window

Using Onelook

In *Onelook*, you can choose to not dial into the voice mail system whenever you have a new message waiting (most PBXs have a flashing “New Message” light on the phone). Instead, wait for *Onelook* to automatically download all new messages or press **F5** in *Outlook* or **Ctrl+M** in *Exchange* to have them downloaded immediately.

In both situations you will get a New Mail icon in the taskbar (shown below) letting you know that there are unread or unheard messages waiting.



Figure C-31: New Mail Icon

Voice Messages

Once you launch a voice message by double-clicking on it in *Outlook* or *Exchange*, the following Message Management window will display:

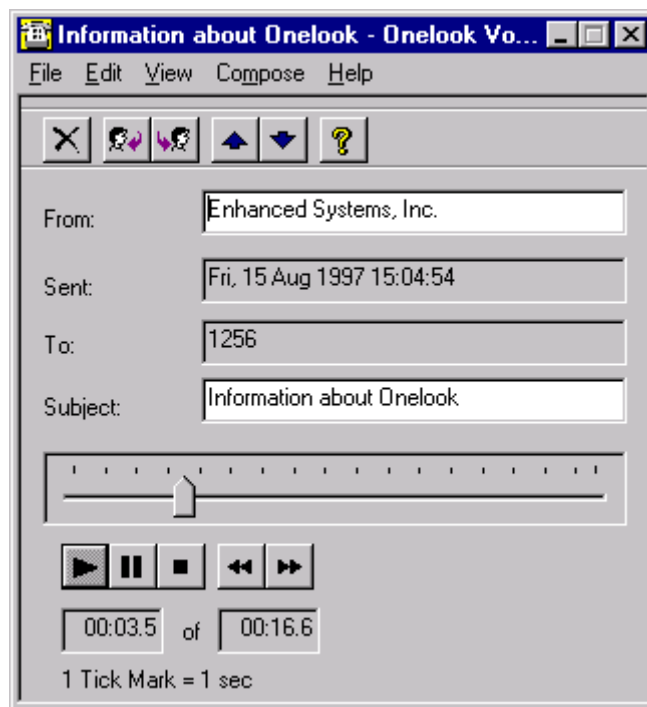








Figure C-32: Message Management Window

- The buttons in the top left portion of the window allow you to do the following:

-  Delete the current voice message
-  Reply with a voice message
-  Forward the current voice message
-  Go to the next message
-  Go to the previous message
-  Show a version information window in *Exchange* or *Outlook*

- The four fields tell you:

From -- From whom the message has been sent

Sent -- When the message was sent

To -- To whom the message was sent

Subject -- The subject of the message

- The message slider bar shows the current position within the voice message.
- The time range at the bottom of the window shows the current position within the voice message in seconds. The bottom text line indicates how many seconds of the message are equal to one tick mark.



The Subject and From fields can be changed to reflect what the message is about and who the message was from. These fields are saved in Exchange or Outlook when you close the form. This process helps make it easier to locate an important facsimile quickly.

Replying to a Voice Message

The following are the steps for replying to a voice message with another voice message:

1. Open the message you want to reply to by double-clicking on it in *Outlook* or *Exchange*.

2. Once it is open press the **Reply** button at the top of the window. This will change the form into a reply window



Figure C-33: Message Management Window

3. Press the record button to record a voice message with a microphone.
4. After recording your message you can listen to it by pressing the play button.
5. If you want to re-record your voice message just repeat step 3 again.
6. Before you send the message, fill in the *To:* field. The address format for this is <mailbox>@<server> (for example, 1234@esimail.com).
7. Fill in the subject line and your name in the *From:* field.
8. Send the message by pressing the Send Message button, and your message will be sent.

Forwarding a Voice Message

The following are the steps for forwarding a voice message to another mailbox:

1. Open the message you want to forward by double-clicking on it in *Outlook* or *Exchange*.
2. Once it is open, press the **Forward** button at the top of the window. This will change the form to a Forward window.

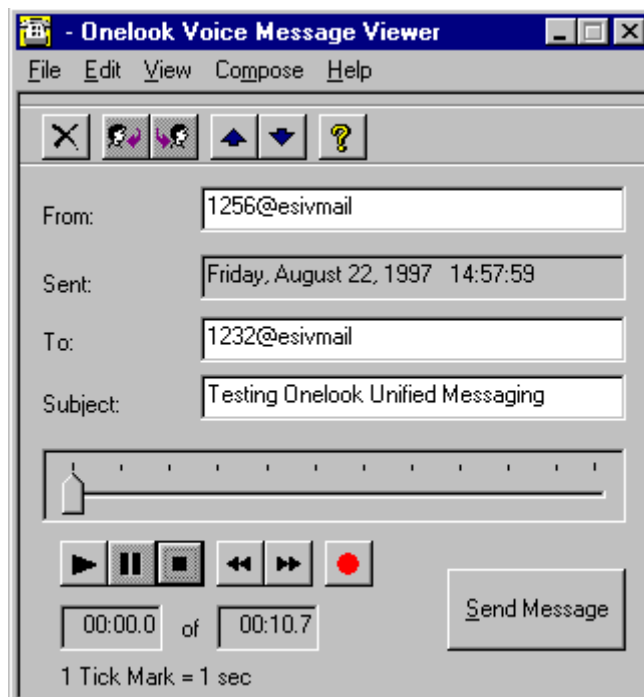


Figure C-34: Onelook Voice Message Viewer Window

3. Press the **Record** button  to record a voice preamble with a microphone.

-
4. After recording your message you can listen to it by pressing the **Play** button.



You cannot re-record a preamble. If you want to do this, you must close the current message and return to Step 1.

5. Before you send the message, fill in the *To:* field. The address format for this is <mailbox>@<server> (for example, 1234@esimail.com).
6. Fill in the subject line and your name in the *From:* field.
7. Send the message by pressing the **Send Message** button, and your message will be sent.

Creating a New Voice Message

The following are the steps for creating a new voice message:

1. Open *Outlook* or *Exchange*.
2. Next, select **New Form** from the *Compose* menu in *Exchange* or **Choose Form** from the *Compose* menu in *Outlook*.

3. The following window displays. Select the type of form you wish to create, then click on **OK**.

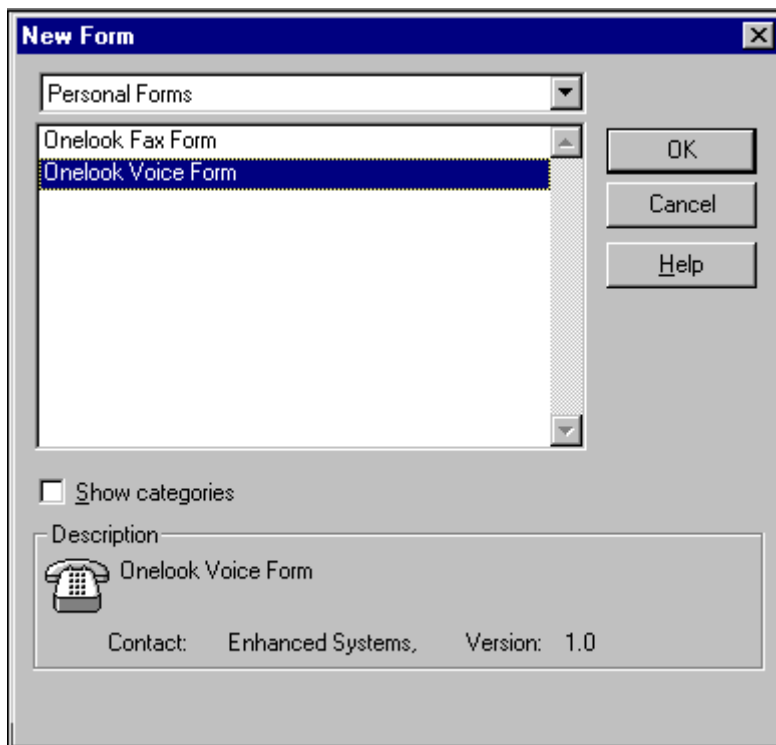


Figure C-35: New Form Selection Window

A blank message window displays.

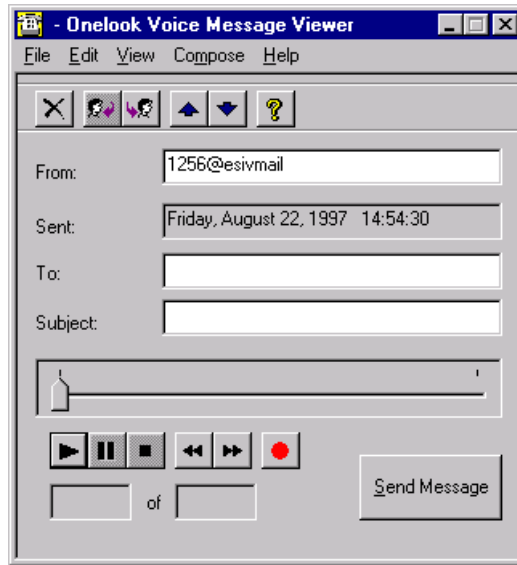



Figure C-36: Onelook Voice Message Viewer Window

4. Fill in the *From* and *Subject* fields.
5. Address the message <mailbox>@<server> (1234@esivmail.com, for example).
6. Press the **Record** button  to record a message with a microphone.
7. Press the **Send Message** button, and the message will be sent.

Facsimile Messages



In order to receive facsimile messages via Onelook, you must have the facsimile option enabled within Onelook.

Once you launch a facsimile message by double-clicking on it in *Outlook* or *Exchange*, the following window displays:

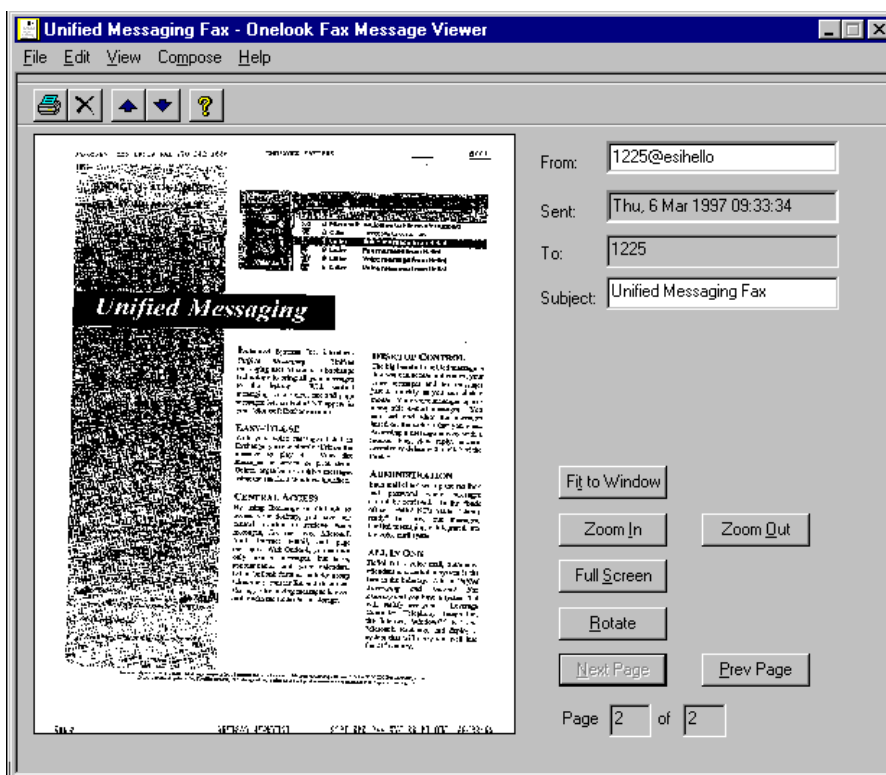


Figure C-37: Onelook Fax Message Viewer

- The buttons in the top left-hand portion of the window allow you to do the following:



Print a current facsimile message



Delete a facsimile message



Go to the next message



Go to the previous message



Show a version information window in *Exchange* or *Outlook*

- The four fields tell you:

From -- From whom the message has been sent

Sent -- When the message was sent

To -- To whom the message was sent

Subject -- The subject of the message

- You can move the image within the window by dragging the mouse on it. This is especially useful when zoomed in on a facsimile.
- The **Fit to Window** button can be used to resize the image to the window after zooming or moving.
- The **Full Screen** button allows you to look at a facsimile in full screen mode. This mode is best for reading facsimile messages on screen.
- On multi-page facsimiles, the **Next Page** and **Prev Page** buttons let you navigate through pages.



The Subject and From fields can be changed to reflect what the message is about and who the message was from. These fields are saved in Exchange or Outlook when you close the form. This process helps make it quicker and easier to locate an important message.

Archiving Messages using Onelook

A good way to archive voice mail messages and facsimiles is to create an *Archive* folder under the *Inbox* folder, as shown in the following window:

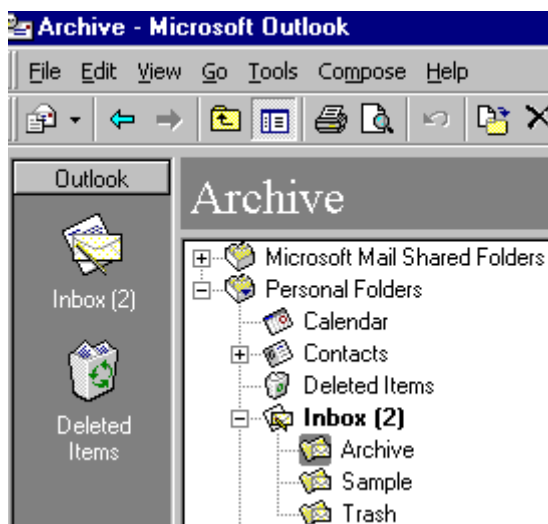


Figure C-38: Archive Folder Setup (in Outlook)



Create an archive folder by clicking on *Inbox* in the left pane and then selecting the *New Folder* option from the *File* menu in *Exchange*, or by selecting *Folder > Create Subfolder* from the *File* menu in *Outlook*.

When you are finished with a new message, archive it by dragging it from the *Inbox* folder to the *Archive* folder. If you want to copy the message instead of moving it, you can hold down the **Ctrl** key before dropping it into the *Archive* folder.

Files in the *Archive* folder are never synchronized. However, if you delete a *Onelook* message from the *Archive* folder, *Onelook* will delete it from the voice mailbox (if it still exists there). This technique can be used to keep your important messages in *Outlook* or *Exchange* indefinitely. It is also recommended that you change the *Subject* and *From* fields in the messages you want to archive so you can find a message quickly.

Troubleshooting

Service Provider window keeps displaying

The server name, mailbox number, or password is not correct and could not be validated. This may also be caused by the network being down or the server not running PFMAIL.

Is the server name correct?

There are two utilities on your system that can help you find this information: *Ping* and *Telnet*.

Ping

Go to a DOS prompt and type `ping <servername>` (for example, `ping esivmail`).

- ☐ If *Ping* returns the message `Bad IP address`, then the server is not known. You can get the correct *Onelook* server name from your network administrator.
- ☐ If the response from *Ping* is `Request timed out`, then the network or server may be down.

Telnet

The second utility will help you if the first one was completed successfully. At the DOS prompt, type `telnet.exe <servername> 10710`. Watch for the following line within a few seconds:

```
+OK UMP POP3 VPOP Server ready.Version 24, UMP/0.10)
```

If this line does not display, then you may have a problem with the *Onelook + Point to Point Server*. The most likely reason for this is that the *Onelook + Point to Point Server* is down. Talk to your system administrator for further assistance.

Why don't I receive any Onelook messages in Outlook?

The server is down. See the "How can I find out if the server name is correct" question above.

My messages are not synchronized

The server is down. See the “How can I find out if the server name is correct” question above.

Outlook or Exchange Locks Up

In other words, when you open *Outlook* or *Exchange* and then click on the *Tools* menu item, *Outlook* or *Exchange* locks up for a few seconds.

This is normal. *Outlook* or *Exchange* launches all message services when you click on the *Tools* menu. If you do not click on the menu right away, the services are launched in the background and the mail client will not lock up.

Recorded voice message playback is not easily audible

Make sure that the volume control for the microphone is at its highest volume. You can check this by doing the following:

1. Double-click on the speaker icon in the notification area of the task bar.
2. Select Options > Properties from the menu bar.
3. In the *Adjust volume for* pane, make sure **Recording** is selected, and make sure that the **Microphone** option is selected in the list box.
4. Click on **OK**.
5. Make sure the volume level for the microphone is as loud as possible.

Now, when you record, you should have better results. If this does not help, you may want to try using a different microphone.

Onelook + Point to Point Server

Onelook + Point to Point Server is an optional software component of *PathFinder*. *Onelook + Point to Point Server* is required to support either *Point to Point* messaging between *PathFinder* systems or *Onelook* unified messaging for Microsoft Outlook/Exchange/Inbox desktop clients.

Onelook + Point to Point Server supports *Point to Point* messaging between *PathFinder* systems in one of the following ways:

- ❑ By sending local *PathFinder* messages outbound over a TCP/IP connection to a remote *PathFinder* system based on remote mailbox address as configured by MAINT.
- ❑ By receiving remote *PathFinder* messages inbound over a TCP/IP connection from a remote *PathFinder* system and depositing them in the appropriate local mailbox.

Refer to “*Point To Point Messaging*” on page C-84 for more details on these processes.

Onelook + Point to Point Server supports *Onelook Unified* messaging clients by supporting a POP/SMTP interface to the local *PathFinder* message store. It feeds outbound messages and accepts inbound messages from *Onelook* client systems. Refer to “*Onelook (Unified Messaging)*” on page C-55 for more details on these processes.

Requirements

Onelook + Point to Point Server requires the following:

- ❑ *PathFinder* release 6 or higher
- ❑ Dedicated TCP/IP access (used for transport) for *Point To Point* messaging
- ❑ TCP/IP access for *Onelook* unified messaging clients.
- ❑ *Onelook + Point to Point Server* activation code for the software controller key



All system components--both required equipment and optional equipment--should be listed in the Microsoft Windows® Hardware Compatibility List (HCL), which can be found on the Internet at <http://www.microsoft.com/hwtest/hcl>. The HCL is a database of hardware, classified by function.

Installation

Onelook + Point to Point Server should be installed from the *PathFinder* CD-ROM by selecting either Point To Point messaging or *Onelook Unified* messaging. If necessary, run the *PathFinder* installation program and select the *Onelook + Point to Point Server* option.

Once installed, *Onelook + Point to Point Server* is made up of the following files:

- ❑ **\\HELLONT\\HNTMAIL\\HNTMAIL.EXE:** This is the *Onelook + Point to Point Server* program. This program sends and receives point to point messages for the local *PathFinder* server, and sends and receives messages for *Onelook Unified* messaging clients.
- ❑ **\\HELLONT\\HNTMAIL\\HNTMAIL.INI:** This is the *Onelook + Point to Point Server* settings file. It contains all the configuration settings that control how HNTMAIL.EXE operates.
- ❑ **\\HELLONT\\HNTMAIL\\LOGS*.LOG:** *Onelook + Point to Point Server* creates a log file of operations for each day, beginning at midnight.

Setup & Configuration

Once the software is installed, configuration changes may be made to *Onelook + Point to Point Server* by editing the \\HELLONT\\HNTMAIL.INI file (no configuration program currently exists).

The following are the *Onelook + Point to Point Server* sections and settings (along with their defaults) that can be configured in the HNTMAIL.INI file.



*Be sure to create a backup of your HNTMAIL.INI file before making any modifications, as an incorrect modification can cause *PathFinder* to behave erratically.*

POP

- ❑ **Port**=10710TCP/IP port that *Onelook + Point to Point Server* listens for inbound *Onelook* connections.
- ❑ **Enabled**=TrueWhether POP service is enabled.
- ❑ **MaxConnections**=5Maximum simultaneous POP connections allowed.

- ❑ **LogEnabled**=TrueWhether POP logging is enabled in general (master log switch).
- ❑ **LogCommands**=FalseWhether POP commands are logged.
- ❑ **LogSocket**=FalseWhether POP socket operations are logged.
- ❑ **LogUserLogin**=TrueWhether POP user logins are logged.
- ❑ **LogUpdt**=TrueWhether POP updt commands are logged.
- ❑ **LogDele**=TrueWhether POP dele commands are logged.
- ❑ **LogRetr**=TrueWhether POP retr commands are logged.
- ❑ **LogUIDL**=FalseWhether POP uidl commands are logged.
- ❑ **LogTop**=FalseWhether POP top commands are logged.

Logs

- ❑ **MaxLogAgeDays**=45Max age (days) before old log files are purged at midnight.

SMTPIn

- ❑ **Port**=10725TCP/IP port that *Onelook + Point to Point Server* listens for SMTPIn connections.
- ❑ **Enabled**=TrueWhether SMTPIn service is enabled.
- ❑ **MaxConnections**=5Maximum simultaneous SMTPIn connections allowed.
- ❑ **ResponseTimeout**=30Maximum time for SMTPIn command/response before disconnect.
- ❑ **LogEnabled**=TrueWhether SMTPIn logging is enabled in general (master log switch).
- ❑ **LogSocket**=FalseWhether SMTPIn socket operations are logged.
- ❑ **LogMessage**=TrueWhether SMTPIn message file operations are logged.
- ❑ **LogQueue**=TrueWhether SMTPIn queue operations are logged.

SMTPOut

- ❑ **DefaultRemotePort**=10725 Default TCP/IP port used for send to remote system.
- ❑ **Enabled**=True Whether SMTPOut service is enabled.
- ❑ **QueueDirectory**=c:\HELLONT\hntmail (Directory for local SMTPOut queue database files).
- ❑ **LogEnabled**=True Whether SMTPOut logging is enabled (master log switch).
- ❑ **LogSocket**=False Whether SMTPOut socket operations are logged.
- ❑ **LogRequeue**=True Whether SMTPOut message requeue operations are logged.
- ❑ **LogMessage**=True Whether SMTPOut message operations are logged.
- ❑ **RetryMaxTries**=100 Maximum number of retries to send a message to remote system.
- ❑ **RetryInterval**=00:05HH:MM retry interval after failed attempt to send SMTPOut message.
- ❑ **SleepSeconds**=300 Seconds to sleep after end of outbound message send cycle.
- ❑ **ResponseTimeout**=30 Maximum time for remote SMTP system to respond before disconnect.

HELLONT

- ❑ **LocalMessagesDirectory**=c:\HELLONT\messagesDirectory for local *PathFinder* message store.
- ❑ **LocalDbaseDirectory**=c:\HELLONT\dbaseDirectory for local *PathFinder* database store.
- ❑ **EngineIPAddress**=Name address of *PathFinder* if *PathFinder* and *Onelook + Point to Point Server* are not running on the same system.
- ❑ **TelnetPort**=23 TCP/IP port to connect to local *PathFinder*.

- ❑ **Login**=*PathFinder* telnet login name to use.
- ❑ **Password**=HNTELNET telnet login password to use.

Usage

Once started, *Onelook + Point to Point Server* has a main status display window that indicates which services are started (SMTP-In, SMTP-Out, POP).

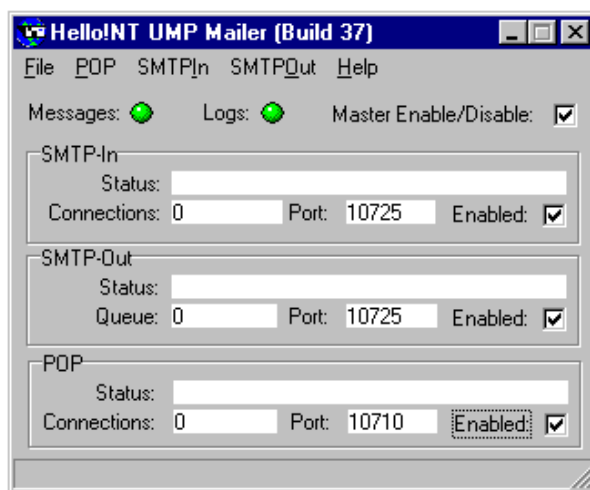


Figure C-39: Main Mailer Window



These services should normally all be started.

Guidelines

- ❑ Click on the *Enable/Disable* check boxes to enable or disable service(s).
- ❑ The Red/Green indicators for Messages or Logs indicate whether disk space is available.
- ❑ Other informational fields indicate the current status of each service.
- ❑ To watch the operation of an individual service (*SMTP-In*, *SMTP-Out*, *POP*), select File > Status from the menu bar to bring up the *Connection Status* window. Refer to [“Connection Status” on page C-79](#) for more information.

Connection Status

The *Connection Status* window has tabs in which you can select the service you want to look at: SMTP-In, SMTP-Out, POP, or all service operations interleaved together chronologically (Master). These log windows (combined or separate) can be used to monitor or troubleshoot the operation of *Onelook + Point to Point Server*.

SMTP-In

Click on the **SMTP-In** tab to see the following window:

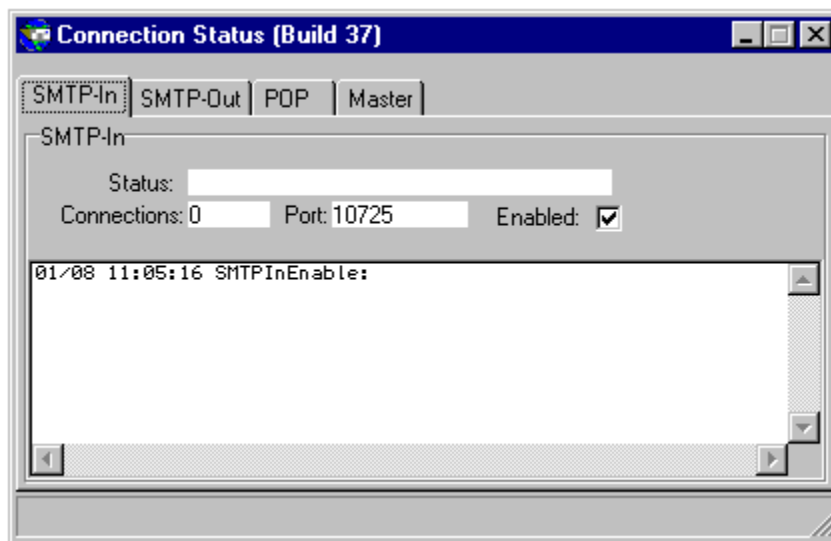


Figure C-40: Connection Status SMTP-In Window

The *SMTP-In* tab of the *Connection Status* window allows you to view all incoming SMTP activity including incoming mail messages.

SMTP-Out

Click on the **SMTP-Out** tab to see the following window:

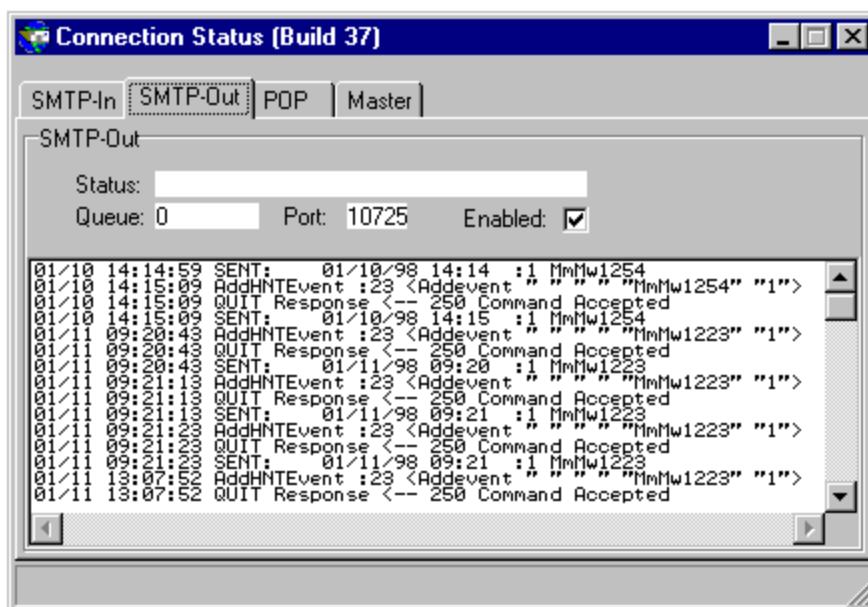


Figure C-41: Connection Status SMTP-Out Window

The *SMTP-Out* tab of the *Connection Status* window allows you to view all outgoing SMTP activity including outgoing mail messages and login attempts.

The *SMTP-Out* service is used to deliver messages that *Onelook + Point to Point Server* has received to mail to another system. The *SMTP-Out* queue is where message delivery requests are queued up until successfully delivered. The purpose of this display is to allow an operator to observe if messages are arriving and being delivered effectively, or if they are backing up because of delivery problems.

To access the *SMTPOut Queue* window, go back to the main menu and select *SMTP-Out > Queue* from the menu bar.

POP

Click on the **POP** tab to see the following window:

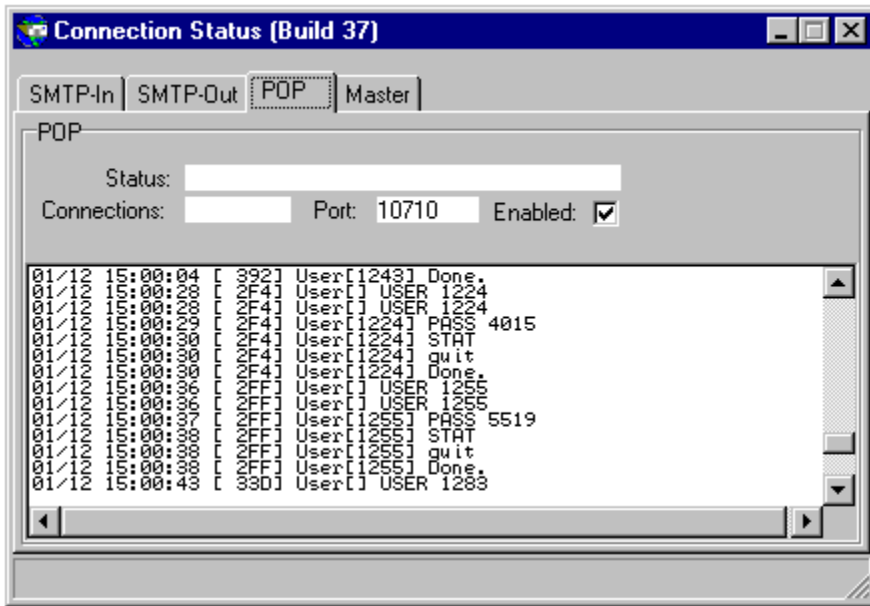


Figure C-42: Connection Status Pop Window

The *POP* tab of the *Connection Status* window allows you to monitor activity on incoming and outgoing messages from the *Onelook* client systems.

Onelook + Point to Point Server supports *PathFinder's* *Onelook* unified messaging optional module. The POP service handles *Onelook* client requests for current message status inside *PathFinder* and delivers the body of messages to the *Onelook* client programs for use on the client systems. *Onelook + Point to Point Server* controls the number of users that are authorized to use *Onelook* by keeping track of the current users who have "leases" to use *Onelook*.

The *POP/Onelook Lease* status window can be retrieved by going back to the main menu and selecting POP > Leases from the menu bar.

Master

Click on the **Master** tab to see the following window:

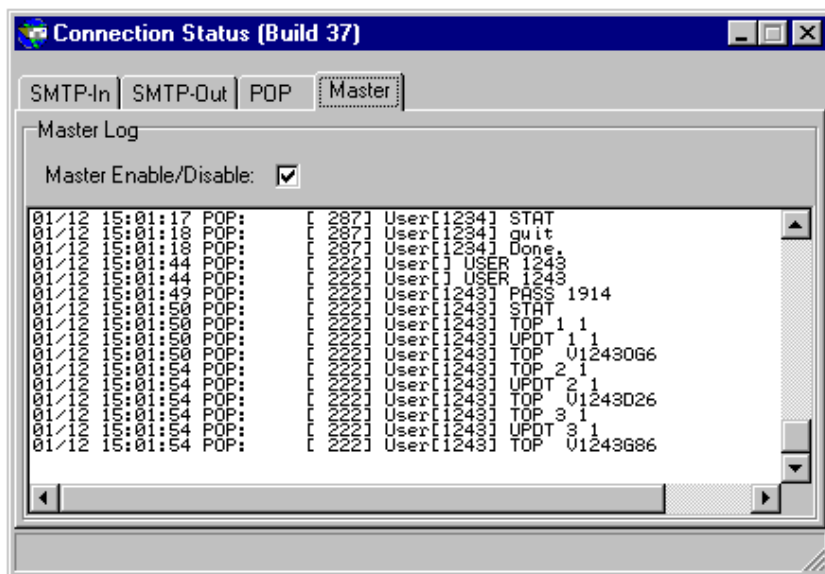


Figure C-43: Connection Status Master Tab

The *Connection Status* window's *Master* tab allows you to view all activity on the system interleaved chronologically.

Troubleshooting

- ❑ Examine log files in \HELLONT\HNTMAIL\LOGS*.log
- ❑ Make sure TCP/IP is installed.
- ❑ Make sure [HELLONT] section settings in \HELLONT\HNTMAIL\HNTMAIL.INI are correct.
- ❑ Make sure all services (SMTPIn,SMTPOut,POP) are enabled in \HELLONT\HNTMAIL\HNTMAIL.INI.
- ❑ Make sure *PathFinder* Engine (HELLONT.EXE) is running.

- ❑ Make sure remote *PathFinder* systems are running correctly (for *Point To Point*).
- ❑ Make sure *Onelook* clients are installed and configured correctly (for *Onelook* unified messaging).
- ❑ Make sure *Onelook* clients have the correct TCP/IP name or address for the HELLONT/HNTMAIL system.
- ❑ Make sure enough *Onelook* leases are enabled on software controller key for active *Onelook* clients.

Point To Point Messaging

This section of the manual contains material related to the optional *Point to Point* messaging capabilities of *PathFinder*. With *Point to Point* messaging, two or more *PathFinder* systems can transport messages using any TCP/IP network. This capability allows low cost messaging between multiple sites. Since *PathFinder* does not use voice lines for delivery, there is relatively little cost involved with sending the messages – regardless of the destination.

While *PathFinder* serves very well as a stand-alone voice processing unit, it also can be networked with other *PathFinder* implementations over any TCP/IP link, including the Internet. With the optional *Point to Point* messaging module, *PathFinder* is able to use store-and-forward to deliver messages intended for remote mailboxes, effectively extending its operations anywhere in the world.

Features

Features of *Point to Point* messaging include:

Voice messages -- anonymous originate, subscriber originate, forward and reply.

Facsimile messages -- anonymous originate, subscriber forward.

Multiple remote sites -- Limited only by length of area code chosen.

Easy to remember "area code" metaphor used for addressing remote sites.

Multiple COS settings for each remote location.

Requirements



All system components--both required equipment and optional equipment--should be listed in the Microsoft Windows® Hardware Compatibility List (HCL), which can be found on the Internet at <http://www.microsoft.com/hwtest/hcl>. The HCL is a database of hardware, classified by function.

The following are the requirements for *Point to Point* messaging:

- ☐ *PathFinder* Release 6 or higher
- ☐ *Point to Point* capability in the software key
- ☐ *PathFinder* Mailer software included in both *Point to Point* and *Onelook* messaging
- ☐ Information on the remote systems: IP addresses; mailbox lengths
- ☐ Network: Network Interface Card (must be on the Windows NT 4.0 HCL)
- ☐ TCP/IP:
 - ☐ Connectivity between Windows NT-based processing sites
 - ☐ Network connection (WAN, LAN, etc.) with TCP/IP protocol running
 - ☐ Dedicated, full-time TCP/IP connectivity to the other sites. This is required so that the *PathFinder* sites can transport the messages on demand.

- ❑ Valid IP addresses
- ❑ Ability to run *Ping* between the servers that make up the *Point to Point* network



*Do not install the server portion of **Point to Point** messaging on a system that already has Onelook/Unified messaging installed. You need only to change the configuration as described in the “Configuring Voice Mail” section of this appendix.*

Installation

Point to Point Messaging is installed from the **PathFinder** installation CD by selecting the **Point to Point** component. If you did not install *Point to Point* along with **PathFinder**, it may be necessary to run the **PathFinder** installation program and select *Point to Point*.

Configuration

To configure the *Point to Point* voice mail system, follow these steps:

1. From the *Start* menu, select Programs > Hello! Voice Processing > MAINT.
2. From the menu bar, select Configuration > Point to Point Settings.

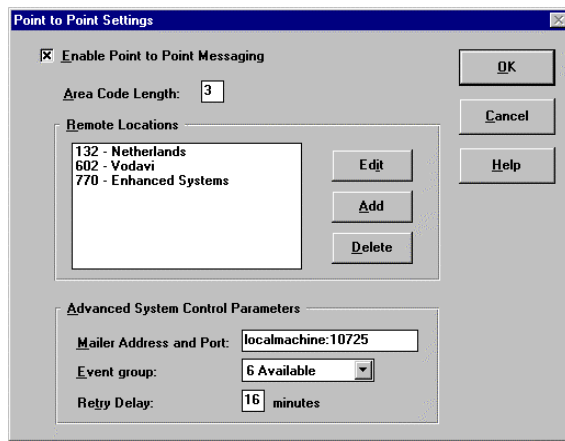


Figure C-44: Point to Point Settings Window

3. Configure this window as follows:

Enable Point to Point Messaging -- Check to enable outbound *Point to Point* messaging. Even when not enabled, the system can still receive inbound messages. The *Onelook + Point to Point Server* needs to be running in order for any messaging to occur.

Area Code Length -- Enter the length, in digits, that area codes will be on this system. A typical value is three. If you only have nine sites, you can use a one-digit area code. Maximum area code length is seven.

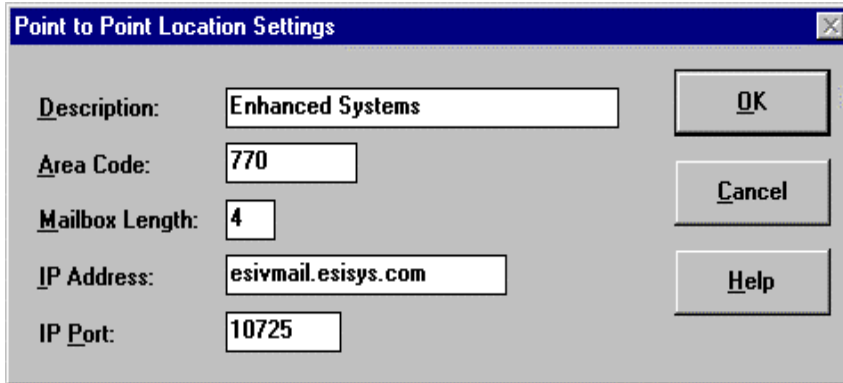
Remote Locations -- This list box contains the remote locations to which this system can send messages. Use the **Add**, **Edit**, and **Delete** buttons to maintain this list.

Mailer Address and Port -- Enter the IP address and port where the *Onelook + Point to Point Server* application is running. This is usually the same system. The port number for the *Onelook + Point to Point Server's* SMTP services is usually 10725. If you wish to change this (for firewall reasons), make sure that you change the settings in the PFMAIL.INI file and the remote locations that are going to send messages to this machine. Enter the machine name, plus a colon, followed by the port: <machine>: <port>.

Event Group -- This is the event group that the voice mail system will use to send messages to the *Onelook + Point to Point Server*. The typical group is 6. Make sure that at least one channel is set to handle these messages.

Retry Delay -- When the voice mail module can not connect to the *Onelook + Point to Point Server*, this field indicates how long before it retries.

4. Select **Add** to add locations. The following window displays:



The image shows a Windows-style dialog box titled "Point to Point Location Settings". It contains five input fields on the left and three buttons on the right. The fields are labeled "Description:", "Area Code:", "Mailbox Length:", "IP Address:", and "IP Port:". The values entered in the fields are "Enhanced Systems", "770", "4", "esivmail.esisys.com", and "10725" respectively. The buttons are labeled "OK", "Cancel", and "Help".

Field Label	Value
Description:	Enhanced Systems
Area Code:	770
Mailbox Length:	4
IP Address:	esivmail.esisys.com
IP Port:	10725

Figure C-45: Point to Point Location Settings Window

5. Configure this window as follows:

Description -- For each location, enter a descriptive title.

Area Code -- For outbound messages, this is the prefix area code that callers will enter. For example, if the remote system has a mailbox number 1234, and the area code for that system is 770, then the caller would enter 7701234.

Mailbox Length -- Enter the length of the mailbox on the remote system. The voice mail module uses this number to validate the remote mailbox.

Examples:

If the area code length is 3 and the mailbox is length 4, and the caller enters 7701234, then *PathFinder* looks up system 770 from this list and will deliver to mailbox 1234 on that system.

If the area code length is 3 and the mailbox length is 3, but the caller enters 7701234, then *PathFinder* looks up system 770 from the list but will return an error because a mailbox number of 1234 has a length of 4 digits rather than the three digits required by the system.

IP Address and Port -- These two fields contain the IP name and port of the remote system's *Onelook + Point to Point Server*. Almost all *Onelook + Point to Point Servers* use port 10725.

-
1. From the menu bar in the main MAINT window, select Edit > Class Of Service.
 2. Click on **Create**.
 3. In the COS Name field, type PTP_xxx (where xxx is the area code for your first remote site).
 4. Edit the COS to match the settings for the first remote system.
 5. Repeat this for the other sites.

Using Point to Point Messaging

Once the installation and setup/configuration steps have been completed, subscribers can use *Point to Point* messaging.

Test

The quickest way to demonstrate *Point to Point's* capabilities is to complete the following test procedure:

1. Call in to *PathFinder*.
2. Access a mailbox's owner functions.
3. Press 2 to send.
4. Record the message, then press 1 to accept.
5. Enter the remote mailbox location number.
6. Enter the area code.
7. Enter the mailbox number, then press #.
8. Press # to confirm.
9. Press # to stop send.
10. Wait approximately one minute while the message is sent.
11. Call into the remote system.
12. Access the mailbox number to which the message was sent.
13. Press 1 to hear message.
14. After listening to the message, press 5 to reply.
15. Listen to the address.
16. Press # to confirm.

Troubleshooting

If messages are not being delivered, use the following methods to diagnose and solve the problem:

- ❑ Make sure that the two systems are both running *PathFinder* and *PathFinder* Mailer.
- ❑ Diagram the IP names and ports for all the connections.
- ❑ Use telnet.exe to connect to the *PathFinder* Mail and *PathFinder* Monitor applications.
- ❑ Check the passwords for consistency.
- ❑ Use *Ping* to see if one system can “see” another.
- ❑ Refer to *“Check Logs” on page C-90*.

Check Logs

You can check logs as follows:

- ❑ Message is sent from a subscriber’s mailbox to another system:

```
C 17:18:59.803 01 H!DBASE Info: Remote location, code=771 mail-  
box=1221 address=esihello port=10725.  
  
C 17:18:59.803 01 H!DBASE Info: Remote Address <1221@771 Ia1221@es-  
ihello:10725>.  
  
C 17:19:06.853 01 Log: VMail 100 Voice Send to Rm1221@771 with  
OrVI100.JG6 Sr100@skelly_nt_a:10725 To1221@771 Ia1221@esihello:10725
```

- Local Onelook + Point to Point Server receives the message from *PathFinder*:

```
17:25:03 02/12 17:25:03 SMTPIn:  c:Waiting on connection.
17:25:05 02/12 17:25:05 SMTPIn:  [1]  <-- HELO skelly_nt_a:10725
17:25:05 02/12 17:25:05 SMTPIn:  [1]  --> 250 Nice to meet you
SKELLY_NT_A:10725
17:25:06 02/12 17:25:06 SMTPIn:  [1]  <-- MAIL FROM:100@esisys.com
17:25:06 02/12 17:25:06 SMTPIn:  [1]  --> 250 OK Mail From:100@ESI-
SYS.COM
17:25:07 02/12 17:25:07 SMTPIn:  [1]  <-- RCPT TO:100@esisys.com
17:25:07 02/12 17:25:07 SMTPIn:  [1]  --> 250 OK Rcpt To:100@ESISYS.COM
17:25:08 02/12 17:25:08 SMTPIn:  [1]  <-- DATA H!NTOut VT100.U66
17:25:08 02/12 17:25:08 SMTPIn:  [1]  --> 250 OK H!NTOut Data VT100.U66
17:25:09 02/12 17:25:09 SMTPIn:  [1]  <-- QUIT
17:25:09 02/12 17:25:09 SMTPIn:  [1]  --> 221 Bye.
17:25:09 02/12 17:25:09 SMTPIn:  [1]  --> xxx Connection closed.
```

- ❑ Local *PathFinder Onelook* + *Point to Point Server* connects to a remote site and delivers a message:

```
17:25:15 02/12 17:25:15 SMTPOut: Connect To ESIHELLO:10725
17:25:15 02/12 17:25:15 SMTPOut: Recv <220-H!NT/UMP Gateway SMTPIn>
17:25:15 02/12 17:25:15 SMTPOut: Recv <220-ESMTP spoken here>
17:25:15 02/12 17:25:15 SMTPOut: Recv <220 UMP/1.0 spoken here>
17:25:15 02/12 17:25:15 SMTPOut: UMP Spoken on other end.
17:25:15 02/12 17:25:15 SMTPOut: --> EHLO
17:25:15 02/12 17:25:15 SMTPOut: Recv <250-XUMP>
17:25:16 02/12 17:25:16 SMTPOut: Recv <250 Hello >
17:25:16 02/12 17:25:16 SMTPOut: --> MAIL FROM:100@SKELLY_NT_A
17:25:16 02/12 17:25:16 SMTPOut: Recv <250 OK Mail From:100@SKELLY_NT_A>
17:25:16 02/12 17:25:16 SMTPOut: --> RCPT TO:1221@ESIHELLO
17:25:16 02/12 17:25:16 SMTPOut: Recv <250 OK Rcpt To:1221@ESIHELLO>
17:25:16 02/12 17:25:16 SMTPOut: --> DATA 15642
17:25:16 02/12 17:25:16 SMTPOut: Recv <354 UMP accepting 15642; end with
<CRLF>.<CRLF>>
17:25:16 02/12 17:25:16 SMTPOut: --> X-UMP-ID: xxxxxxx.xxx
17:25:16 02/12 17:25:16 SMTPOut: --> X-UMP-Category: Voice
17:25:16 02/12 17:25:16 SMTPOut: --> X-UMP-Status:
17:25:16 02/12 17:25:16 SMTPOut: --> X-UMP-Flags:
17:25:16 02/12 17:25:16 SMTPOut: --> X-UMP-Size: 0:00:05
17:25:16 02/12 17:25:16 SMTPOut: --> X-UMP-Priority: 3
17:25:16 02/12 17:25:16 SMTPOut: --> To:
17:25:16 02/12 17:25:16 SMTPOut: --> From:
17:25:16 02/12 17:25:16 SMTPOut: --> Date:
17:25:16 02/12 17:25:16 SMTPOut: --> MIME-version 1.0
17:25:16 02/12 17:25:16 SMTPOut: --> Content-type: audio/adpcm
```

```
17:25:16 02/12 17:25:16 SMTPOut: --> Content-length: 15408
17:25:16 02/12 17:25:16 SMTPOut: --> Content-encoding: Binary
17:25:16 02/12 17:25:16 SMTPOut: -->
17:25:16 02/12 17:25:16 SMTPOut: -->
17:25:16 02/12 17:25:16 SMTPOut: --> .
17:25:16 02/12 17:25:16 SMTPOut: Recv <250 VT1221PGC Message accepted
for delivery.>
17:25:16 02/12 17:25:16 SMTPOut: --> QUIT
17:25:16 02/12 17:25:16 SMTPOut: Rename VT100.U66 to VD100.U66
17:25:16 02/12 17:25:16 SMTPOut: SENT:      02/12/97 17:25  100@ESI-
SYS.COM:0 VT100.U66
```

- ❑ Remote *Onelook + Point to Point Server* receives a message and sends to remote *PathFinder*:

```
17:20:55 02/12 17:20:55 SMTPIn: [1] <-- EHLO
17:20:55 02/12 17:20:55 SMTPIn: [1] --> 250-XUMP
17:20:55 02/12 17:20:55 SMTPIn: [1] --> 250 Hello
17:20:56 02/12 17:20:56 SMTPIn: [1] <-- MAIL FROM:1221@ESIHELLO
17:20:56 02/12 17:20:56 SMTPIn: [1] --> 250 OK Mail From:1221@ESIHELLO
17:20:56 02/12 17:20:56 SMTPIn: [1] <-- RCPT TO:100@SKELLY_NT_A
17:20:56 02/12 17:20:56 SMTPIn: [1] --> 250 OK Rcpt To:100@SKELLY_NT_A
17:20:56 02/12 17:20:56 SMTPIn: [1] <-- DATA 12582
17:20:56 02/12 17:20:56 SMTPIn: [1] --> 354 UMP accepting 12582; end
with <CRLF>.<CRLF>
17:20:56 02/12 17:20:56 SMTPIn: c:Waiting on connection.
17:20:56 02/12 17:20:56 SMTPIn: [1] <--
17:20:56 02/12 17:20:56 SMTPIn: [1] <-- .
17:20:56 02/12 17:20:56 SMTPIn: [1] --> 250 VT100KKP Message accepted
for delivery.
17:21:04 02/12 17:21:04 SMTPOut: AddHNTEvent :23 <Addevent " " " "
"MmNmVT100.KKP" "1">
17:21:05 02/12 17:21:05 SMTPOut: QUIT Response <-- 250 Command Accepted
17:21:05 02/12 17:21:05 SMTPOut: SENT: 02/12/97 17:20 100:0 VT100.KKP
17:21:26 02/12 17:21:26 SMTPIn: [1] <-- xxx connection closed (by Re-
mote?).
17:21:26 02/12 17:21:26 SMTPIn: [1] --> xxx Connection closed.
17:21:26 02/12 17:21:26 SMTPIn: [1] <-- xxx connection closed (by Re-
mote?).
```


- ❑ Remote *PathFinder* delivers the message:

```
A 18:24:54.569 -- tcpin: login U=[HELLO] P=[HNTELNET]
```

TeleQueue

TeleQueue gives *PathFinder* Automatic Call Distributing (ACD) features. With TeleQueue you can create 1,000 call queues that callers can access. Each queue has its own unlimited list of possible extensions and associated prompt and help files. With TeleQueue, you can select for callers waiting to do one of the following:

- ❑ Be connected to hear pre-recorded prompt files
- ❑ Be placed on hold and hear music from your phone system
- ❑ Hear pre-recorded music provided by *PathFinder*
- ❑ Wait

At any time before transferring begins, a caller may elect to exit the queue and be placed in a menu. From there the system administrator can do many things, including taking a voice message through voice mail or transferring to an operator. Each queue also has the ability to send the caller to a predefined Auto Attendant extension if all extensions in the queue list are ring no-answer. This is especially useful for after hours.

Requirements

To set up TeleQueue you need to do the following things:

- ❑ Make sure *PathFinder* is installed properly and is functioning correctly.
- ❑ Make sure the TeleQueue support is activated in the key.
- ❑ Add the necessary parameters for each queue in the registry.

- ❑ Allow a caller to get to the queue by using a menu, or by answering the telephone with TeleQueue.

There are no additional system requirements to run TeleQueue.



All system components--both required equipment and optional equipment--should be listed in the Microsoft Windows® Hardware Compatibility List (HCL), which can be found on the Internet at <http://www.microsoft.com/hwtest/hcl>. The HCL is a database of hardware, classified by function.

Getting Started

The TeleQueue files are installed as part of the Release 6 install. No other files are required.

To set up TeleQueue, you must create the necessary registry entries for the queue or queues that you intend to use. To modify the registry, go into MAINT, and select Configuration > Registry > Registry Maintenance > Create Registry Item. Each registry item has a name and a value associated with it. When you create a registry item, just fill in the *Name* and *Value* fields and press the **Enter** key for all the other fields.



You may want to enter a description to make things clearer when you view the registry list.

TeleQueue Registry

All TeleQueue items in the registry start with "Tq" to make them easier to find. The following is a list of TeleQueue items and what they do. When you create the item, give it a name and a value. Examples are listed in each item entry.

Registry Items

The following registry items assume "0000" as the queue name.

Tq0000Desc

A description line. Not used by the system, but provided for clarity. This is a mandatory item, and it must be included for each queue.

Tq0000LstExt

The last extension *PathFinder* transferred to. This allows the callers to be sent to the extensions in a linear order, so that all extensions will have an equal chance of receiving the same number of calls. When setting up a queue, just leave this line blank. This is a mandatory item.

Tq0000HldTyp

Hold type. While a person is waiting to be moved to the front of the line you can do three things with the call. First, you can do nothing and just tell TeleQueue how long to do it. This is called “sleeping” and is designated by an **S** followed by the number of seconds to sleep before checking the position in the queue. **S10** would check the queue and confirm that the caller wants to stay every 10 seconds. A number like 30 is probably more reasonable.

Another type of holding is to do a hold using the phone system's hold features. If TeleQueue is told to hold, then *PathFinder* would dial a “transfer start,” then sleep for the designated number of seconds and then dial the “ring no-answer abort” sequence. The letter **H** is used, followed by the number of seconds to hold. For example, **H30** would tell TeleQueue that the caller should be put on a phone system hold for 30 seconds.

The final method of holding is for TeleQueue to play hold files. If a **P** is specified and there are not any files recorded, TeleQueue plays the canned message TQ_MUSIC.VOX. You can record any number of consecutive prompt files. The file names for our test queue 234 would be TQ234.1, TQ234.2, TQ234.3, and so on. When TeleQueue gets to the end it replays the first message.

Tq0000HlpFls

Are help files allowed? Help files allow the caller to enter a four-digit prompt number while listening to other prompt files. For example, if a caller was listening to TQ234.2, he could then press “4567#” and TeleQueue would play TQ4567.VOX.

If these help files are recorded with the correct information, you could help the caller without ever sending them to an extension. Set the fourth line to a 0 to turn this ability off or to a 1 to allow it. If it is turned off then TeleQueue ignores the keys.

Tq0000Menu

Name of the menu to run when the caller presses 0. Make sure the menu exists. If it does not, *PathFinder* will disconnect the caller. In *PathFinder* Release 5.0, the menus can Branch to other menus, time controls, etc.

Tq0000LstRsrt

Last resort extension. This is an extension number that must exist in the Auto Attendant database. After TeleQueue goes through all extensions and finds them all “ring no answer”, it will transfer control to this extension. If you do not have an extension on this line or it is invalid then TeleQueue will continue through the list.

Tq0000Loops

Number of loops through the EXT file before asking the caller to verify that they wish to stay in the queue. If you only have one extension in the EXT file (possibly a hunt group on your phone system) then you will want this number to have a value of at least three. This is to prevent TeleQueue from continually coming back and asking the caller if he wishes to hold.

Tq0000PlayTm

Minimum time to play hold files. Used only if hold files (Line 3) are turned on. Just before TeleQueue starts playing a hold file, it remembers the time. After playing a file it then waits to see if the minimum time has elapsed. If not, it waits (the caller hears silence) until the time has elapsed. If during this wait time the caller gets to the head of the queue or if they press a key, they will be brought out of the waiting cycle. This parameter is usually 30 seconds and is used to keep the caller on hold a specified number of seconds, regardless of the length of the individual hold files. The value in the file should be expressed in seconds. A value of “0” indicates to TeleQueue that after playing the hold file it should re-check the position and move to the next hold file.

Tq0000NTmToAsk

Loops while waiting before getting response. This is similar to **Tq000Loops**, except that this is used for callers who are not at the head of the queue. After holding the caller, use whatever method is specified in **Tq0000HldTyp**.

Tq0000ExtLog

Extended Logging Flag. This field should be either a 1 (extended logging turned On) or a 0 (Extended logging turned off). Extended logging generates simple SMDR type log lines in the *PathFinder* system log. It also allows tracking of the CSR status (see **TqCsrCtl** below). A typical log line for extended logging would look like the following:

```
:
13:30:02 04 H!TELEQ: CSR 7404
Answered.
13:30:02 04 H!TELEQ: CSR Caller Out
13:31:12 05 H!TELEQ: CSR Caller In
Position 0
13:31:12 05 H!TELEQ: CSR 7401 is 3.
13:31:13 05 H!TELEQ: CSR 7402 Busy.
13:31:14:05 H!TELEQ: CSR 7403
Answered.
13:31:14:05 H!TELEQ: CSR Caller Out
```

TqCsrCtl

CSR Status Tracking Flag. Note: This is a system wide parameter and thus does not need to have the queue specified. This field controls whether TeleQueue should support the CSR status files. A value of 1 turns on CSR Status tracking and a 0 turns it off. The CSR Status files allow the extension owners to mark themselves as busy for 1 of 9 reasons and then to mark themselves as not busy. While a CSR is marked as busy, no other calls will be sent to that extension.

A CSR can call into the system and set the status to 0 (Available), or 1-9 (Not Available). Assuming you are answering the phone with a menu, when the caller presses 1 you send them to the custom module H!TELEQ.SUB and for the parameter you enter 1234. This sends any calls into queue 1234.

If you would like the CSRs to change their status by pressing 8 from the main menu, then set key 8 up to go to custom module H!TELEQ.SUB and for the parameter enter "CSRMAINT". When the caller presses 8, we play the prompt VOX\TQGETCSR.VOX. You should record something like "Enter your CSR extension number followed by pressing pound." Once the CSR enters an extension, we then play the prompt VOX\TQGETSTA.VOX. You should record something like "Enter your status, 0 for available, 2 for out to lunch, 3 for personal time...". After *PathFinder* receives a single digit it changes the CSR's status and hangs up.

If, at the TQGETCSR.VOX prompt, the caller enters a queue number followed by *, then we generate a report of all CSRs status in that queue. The queue number entered before the * must be valid. After generating the report, *PathFinder* will hang up. The following is an example of the report:

```
12:20:01 03 H!TELEQ Report Start
.....
12:20:01 03 H!TELEQ Report Queue [1234]
12:20:01 03 H!TELEQ Report CSR 7401 marked as 0.
12:20:02 03 H!TELEQ Report CSR 7402 marked as 0.
12:20:03 03 H!TELEQ Report CSR 7403 marked as 1.
12:20:04 03 H!TELEQ Report CSR 7404 marked as 0.
12:20:05 03 H!TELEQ Report CSR 7405 marked as 3.
12:20:05 03 H!TELEQ Report CSR 7406 marked as 4.
12:20:06 03 H!TELEQ Report Stop
.....
```

Tq0000AlwCllr

Default Action Stays in Queue. This field controls what happens when we ask a caller (in any position) to press 1 to continue to hold or 0 for the operator. Normally if the caller does nothing, TeleQueue assumes the caller has hung up or does not want to stay in the queue. This is what TeleQueue does when there is a 0 on line 12. If a 1 is placed on line 12, then TeleQueue will allow the caller to stay in the queue, even if no DTMF key is received. The down side is that if your phone system sends silence (H2) when a caller has hung up, then TeleQueue may think the caller wants to stay in the queue, when actually they have hung up. If your phone system sends a drop in loop current (H1), you are safe to set this parameter to a 1.

Tq0000ShwCntrs

Show Queue Event Counters. If this value is a 1, then TeleQueue will update the event counters on *PathFinder*'s run-time screen when this queue is accessed.

Tq0000StrtAtTp

Start Over in EXT List. If this value is a 1, then TeleQueue will start at the beginning of the EXT list for each caller. TeleQueue will not remember the last extension it transferred to - but will always start at the top of the list.

Tq0000NoRBBfrHu

Number of No Ring Backs before Disconnect. This field indicates how many no-ring backs TeleQueue should process before it disconnects the caller. A value of 1 to 3 is common.

Tq0000MstrQ

Queue Priority or Master Queue Number. (See TQTEST.DOC)

Tq0000PsudoSup

Use Pseudo-Transfers. Most systems should have this value set to 0. On systems where you want the system to do a blind-transfer to the CSRs extension (followed by waiting for any DTMF), put the number of seconds to wait for a DTMF on line 17. When the CSR picks up the phone, the system will be silently waiting for a DTMF. Alternatively, you may record a prompt in the VOX\TQ_TRANS.VOX file.

Instead of representing the number of seconds to wait, the Line 17 parameter would reflect how many times the TQ_TRANS.VOX prompt is played before assuming ring-no-answer.

Tq0000ExitExt

Exit to Extension. If this is set to 0, then while a person is on hold waiting for a CSR to free up, they can only press "0" to get to an operator or menu. If this is set to "1", then the person has the additional option of pressing "*" to enter an extension to transfer to, or to get to the company directory.

EXT List

The EXT list in the registry contains the extensions that TeleQueue should call. This list does not have to be in any order. TeleQueue does follow this ordering but because it always starts calling from where it left off on the previous call, you cannot be sure where TeleQueue will start. There can be any number of extensions in this list. Each entry in the list should contain one extension. The extension numbers in the EXT file are independent of the list of extensions in Auto Attendant.

Keep in mind that TeleQueue works faster if you can take all of your destination extensions (those that would normally be listed in the EXT list) and put them in a "hunt group" on your PBX. If the access extension for that "hunt group" is 290 then that would be the only extension that would appear in the EXT list. The reason this is usually better is because when there is a list of extensions TeleQueue has to step through each and find if it is busy, but if your PBX does the work it will respond much faster.

The format in the registry for extension entries is as follows:

<u>Name</u>	<u>Value</u>
Tq0000#01	1111
Tq0000#02	1112

So that in the above example, Queue 0000 has two extensions associated with it.

If you are using CSR Control features, then you must add a line for each of the extensions to hold the status of the CSR. The format of the CSR entries for the above example follow:

<u>Name</u>	<u>Value</u>
TqCSR#1111	0
TqCSR#1112	0

The value of the CSR entry will change when the CSR checks in or out.

Setup Items

The following items are involved in the setup of TeleQueue.

Attaching TeleQueue

You can link TeleQueue to the rest of *PathFinder* through a menu or by directly associating a queue to a line. To link TeleQueue to a menu, go into MAINT and select Modules > Menu > Edit Menu and pick the menu that you answer the phone with. Then select the key that you will want to take the caller to TeleQueue, select for its action "Run Module" and enter "H!TELEQ.0000", where "0000" is the queue number. For CSR MAINT, the entry would be "H!TELEQ.CSRMAINT".

To send all calls coming in on a particular line to a queue, select "Setup Lines" from the MAINT main screen, select the line you want to send to the queue, select "Run Modules" as the action for that line and follow the preceding instructions to run the TeleQueue module with your queue.

Because of *PathFinder*'s very powerful Time Control feature, you can have certain lines go to a queue during one time period, then to another queue at another time period.



TeleQueue is a versatile package. However, it is important to understand your application and the limitations of some phone systems to be able to fully exploit its capabilities.

Use of Hunt Group

When you are using a hunt group, you must be able to set up the hunt group in a UCD (Uniform Call Distribution) format. This allows ringing of the next extension in the hunt group that has not been called recently.

Without UCD, calls transferred to the hunt group by *PathFinder* are not evenly distributed and possibly could create a situation where *PathFinder* repeatedly calls an extension that does not answer.

If you do not have UCD, it is highly recommended that you use an extension list.

Position in Queue

If a caller chooses the option to exit the queue by pressing 0, their position in the queue is lost. If the caller chooses to go back into the queue, they will be placed at the end of the queue (depending upon the configuration). This may give the caller the impression that their queue position is deteriorating. TQ_INSTR.VOX can be modified to warn a caller that they will lose their position in the queue if they exit.

Last Resort Extension

It is important to provide some way out of the queue for the caller unless you absolutely do not want to provide this option and understand the consequences.

Opening Prompts

Some people attempt to run TeleQueue without using an opening prompt. This is not recommended due to the confusion it can create.

Pressing a Key to Stay in Queue

It is not necessary for the caller to press a key to stay on hold. To accomplish this, increase the number of tries in Configuration Line 9.

Hang-Up Detection

The best type of hang-up detection for TeleQueue is Drop in Loop Current. It is highly recommended that when using TeleQueue, you use telephone lines that provide this feature.

Prompt Names and Descriptions

Table C-6: Telequeue Prompts and Descriptions

TQ_INTRO.VOX	"Your call will be answered in the order that it was received."
TQ_INSTR.VOX	"Press 0 at any time to be transferred to the operator. While you are waiting you will be prompted to press 1 to remain on hold."
TQ_CONT.VOX	"Please press 1 to continue to hold or press 0 to reach an operator."
TQ_CONT2.VOX	(Used for the number 1 caller when you want to say something different than what is in TQ_CONT.VOX.)
TQ_NEXT.VOX	"I will now transfer you, please do not hang up"
TQ_POS1.VOX	"There is only 1 person in front of you, please continue to hold."
TQ_POSX.VOX	"There are..."
TQ_FRONT.VOX	"...callers in front of you."
TQ_CALL.VOX	"You have a call from TeleQueue."
TQ_MUSIC.VOX	(Music - prerecorded; played if no prompt files exist for this queue)
TQGETCSR.VOX	"Enter your CSR number followed by pressing #."
TQGETSTA.VOX	"Enter your CSR status code" -or-"Press 0 if available or 2 if out to lunch."
TQEBAD1.VOX	"CSR extension"
TQEBAD2.VOX	"is invalid."
TQEOK1.VOX	"CSR extension"
TQEOK2.VOX	"is now set for status code"
TQEOK3.VOX	"Thank you"
TQ_TRANS.VOX	"Press 1 to accept TeleQueue call."

All the prompts in TeleQueue are "checked" and if they do not exist then TeleQueue does not try to play them. Therefore you may simply erase (or change) any prompts you wish.

All prompts for TeleQueue are stored in the *\PathFinder\VOX* directory.

The TQExxxx.VOX prompts are played when a CSR changes the status code of an extension.

If the extension number entered does not exist in the extension list in MAINT, then the TQEBAD1 and TQBAD2 prompts are played. If the status code is successfully changed, then TQEOK1, TQEOK2, and TQEOK3 are played. The extension number is played between 1 and 2 and the status code number is played between 2 and 3.

Queue Introductions

Each queue can have its own introduction and TQ_CALL.VOX file. The name for the introduction (or greeting) file is TQ<queue>.GRT. The greeting file for queue 234 would be TQ234.GRT. Also, the first caller into the queue can have a different greeting file. The file for the first caller ends in GR0 instead of GRT. For example, queue 234 would use the file TQ234.GR0 for the first caller. The other file, TQ_CALL.VOX is played when TeleQueue finds an extension available and it is answered. It is similar to the message "You have a call" heard in Auto Attendant. If you wish for a queue to have its own "answer" message then record a prompt named TQ<queue>.ANS. The complete file name for queue 234 would be TQ234.ANS. If this file does not exist, then TeleQueue falls back and plays TQ_CALL.VOX.

Wait For Transfer

As mentioned earlier, you can tell TeleQueue to play prompt files for a caller while he is waiting to be transferred. Each queue has its own prompt files and they can be recorded with MAINT's *Recording Studio*. The file names for these prompts are TQ<queue>.<prompt number>. The first five prompt files for queue 234 would be: TQ234.1, TQ234.2, TQ234.3, TQ234.4, and TQ234.5. You can have one or more prompt files. When TeleQueue gets to the last prompt it will reset back to the first one. As mentioned earlier, if you do not have a "1" file then the file TQ_MUSIC.VOX is played.

Help Prompts

You can also have help files. These are not specific to a particular queue like the files mentioned above. Help files all have a unique 4,5 or 6 digit number. The caller can, while listening to the files TQ234.1 through TQ234.999, enter the help prompt number followed by pressing pound.

This feature can be used to help callers solve their problems while they are waiting to be transferred.

Typically you would set the queue up to allow prompt files and record a file TQ234.1 that would have the following instructions:

"While you are waiting for a representative you may enter the following numbers to get more information. For information on *PathFinder* press 1111#. For information on TeleQueue press 2222#. Otherwise stay on the line and someone will be with you shortly. Remember to press 1 when prompted if you wish to continue to hold."

Then you would record TQ1111.VOX and put something like:

"You selected more information on *PathFinder*. For information on new products press 1112#. For information on common problems for first time installations press 1113#. For information on common problems on installed systems press 1114#."

You will need to plan the files and what is in them along with the correct names to be used. If this is set up correctly, it can help your customers solve their problems before they ever reach a support person.

Non-Queue-Specific Prompts

The last set of custom prompt files are not queue specific. They are used to customize what messages the caller hears, depending on how many other callers are in front. For the first caller, the file name would be TQ_POS1.VOX. For the second caller, the file name would be TQ_POS2.VOX. These are most commonly used to give the caller an estimate on how long (on average) it will take to be connected.

Troubleshooting / Testing

Now test your setup. To see the real power of TeleQueue you will need to have many people call into the system at the same time. The first caller will be transferred to the first available extension. Each caller after that will be queued according to which call was answered first.

Sample Logs

QuickCommand=<command sequence>

```
08:02:46 03 08:02:31 B CSS_4521 1aTQUE script <H!TELEQ> param <111> ...
08:02:46 03 H!TELEQ CSR TQ111 Caller Start Position 1.
08:02:47 02 08:02:43 B CSS_4521 8aTQUE script <H!TELEQ> param <csrmaint>
...
08:02:57 01 H!TELEQ CallTime 1642 CallResult 8 <&,4585>.
08:02:58 01 H!TELEQ CSR TQ111 4585 No Answer.
08:02:59 01 H!TELEQ CSR TQ111 4586 is 2.
08:03:01 02 H!TELEQ CSR 4585 set to 2 by CSR.
08:03:01 02 08:02:43 ...,H!TELEQ csrmaint,H!TELEQ CsrMaint Csr Status
4585 , ...
08:03:01 02 011 Sys: Blockage Cleared Group# 1
08:03:01 02 08:02:43 ...
08:03:02 04 011 Sys: Blockage Detected Group# 2
08:03:03 01 H!TELEQ CallTime 407 CallResult 10 <&,4587>.
08:03:04 01 H!TELEQ CSR TQ111 4587 Answered.
08:03:04 01 08:02:19 ...,H!TELEQ 111,H!TELEQ TQ111 startpos=0 ca4585=8
ca4587=10 ...
08:03:04 01 H!TELEQ CSR TQ111 CSR Caller Out.
08:03:04 01 08:02:19 ... connect 4587,
08:03:19 04 08:03:02 B CSS_4521 1aTQUE script <H!TELEQ> param <111> ...
08:03:19 04 H!TELEQ CSR TQ111 Caller Start Position 1.
08:03:29 01 08:03:24 B CSS_4521 8aTQUE script <H!TELEQ> param <csrmaint>
...
08:03:37 01 H!TELEQ CSR 4585 set to 2 by CSR.
08:03:37 01 08:03:24 ...,H!TELEQ csrmaint,H!TELEQ CsrMaint Csr Status
4585 , ...
08:03:37 01 08:03:24 ...
08:03:38 03 H!TELEQ CSR TQ111 4585 is 2.
08:03:38 03 H!TELEQ CSR TQ111 4586 is 2.
08:03:45 03 H!TELEQ CallTime 714 CallResult 10 <&,4587>.
08:03:46 03 H!TELEQ CSR TQ111 4587 Answered.
08:03:46 03 H!TELEQ CSR TQ111 CSR Caller Out.
08:03:46 03 08:02:31 ...,H!TELEQ 111,H!TELEQ TQ111 startpos=1 ca4587=10
connect 4587,
```

Glossary

Automated Attendant

The Auto-Attendant processes all call transfer activity not carried out by a human operator or user. The Auto-Attendant settings provide access to caller-related Call Queue Interval and Directory configurations. The Auto-Attendant Operator setting determines what happens when a caller presses 0 while in the Auto-Attendant module.

COS

Class of Service. To understand Class of Service (COS), think of an airplane. Some passengers fly first class, others fly business class, and some fly economy class, each with different amenities and services. *PathFinder* can do the same for subscribers, defining a virtually unlimited number of different classes of service. Each subscriber is associated with a COS that defines its attributes. Grouping mailboxes and extensions into classes of service lets you change options for all the mailboxes and extensions in the same class simultaneously, simply by editing the COS record. Refer to [Chapter 5, Class of Service Settings](#).

DTMF

Dual Tone Multi-Frequency. Sounds made by a push-button telephone's keys when they are pressed.

Hardware

The various interface devices (voice cards) that *PathFinder* uses to connect the computer and the phone system.

These devices provide the support for voice messaging, fax services, text-to-speech, and voice recognition support. The *PathFinder* system uses Dialogic® products.

HCL Hardware Compatibility List. All system components--both required equipment and optional equipment--should be listed in the Windows NT® Hardware Compatibility List (HCL), which can be found on the Internet at <http://www.microsoft.com/hwtest/hcl>. The HCL is a database of hardware, classified by function.

IRQ Interrupt Request.

MWI Message Waiting Indicator.

Operator There are several different types of operators in *PathFinder*. The operators are called when a caller dials 0 at different times during *PathFinder* operation. All operator settings are defined in the Registry. There are four operators used in the system, as follows:

- ☐ General Operator
- ☐ Voice Mail Operator
- ☐ Auto-Attendant Operator
- ☐ Personal Mailbox Operator

Refer to "*Operators*" on page 5-9 for more information.

PBX Private Branch Exchange.

PEB Pulse Code Modulation Expansion Bus. A Dialogic bus type. Also refer to "SC".

POTS	<u>P</u> lain <u>O</u> ld <u>T</u> elephone <u>S</u> et. Refer to “SLT”.
RJ11 and RJ14	Telephone connectors/jacks.
SC	Dialogic bus type. Also refer to “PEB”.
SLT	<u>S</u> ingle <u>L</u> ine <u>T</u> elephone.
SMDI	<u>S</u> implified <u>M</u> essage <u>D</u> esk <u>I</u> nterface.
Subscriber	The terms “user” and “subscriber” are used interchangeably throughout this manual. A subscriber can be either a mailbox user, an extension user, or a user who has both a mailbox and an extension.
UDDU	<u>U</u> niversal <u>D</u> ialogic <u>D</u> iagnostic <u>U</u> tility. Allows you to run tests on your voice board to determine the integrity of the board. The best way to determine if your Dialogic boards are configured correctly is to use the UDDU. Refer to “How Can I Be Certain I Configured My Dialogic Boards Correctly?” on page 2-54 .
User	The terms “user” and “subscriber” are used interchangeably throughout this manual. A subscriber can be either a mailbox user, an extension user, or a user who has both a mailbox and an extension.
Voice Messaging	The terms “voice messaging” and “voice mail” are used interchangeably.

Index

A

- Abort a Connected Transfer 5-31
- Access Levels 4-1, 4-10
- Action options 5-52
- Actions 5-52, 5-84
- ActiveVex 5-100
- Activity Reports 4-7, 6-10
- Adapter 2-18, 2-20
- Add Prompt 7-7
- Adding a Voice Description to a Fax Document C-42
- Adding Registry Variables 3-3
- ADMIN C-40
- Administration Password C-37
- Administrator Access 4-11
- Adobe® Acrobat Reader® 2-20
- ADPCM 7-1
- Advanced Tone Features 2-25, 2-51
- Analog Line 2-12, 2-13
- Anti-static
 - Floor Mat 2-6, 2-11
 - Wrist Strap 2-6, 2-11
- Archiving Messages using Onelook C-71
- Area Code C-88
 - Length C-87
- Ask for Extension 5-90, 5-100
- Ask for Mailbox 5-90, 5-100
- Assigning Mailbox & Extension Numbers 5-41
- Assigning Port Modules 5-102
- At an extension 4-9
- Attaching TeleQueue C-103

- Auto-Attendant 4-6, 5-4, 5-7, 5-72

 - Logs 8-9

 - Operator 5-10

 - Settings 5-77

 - Time Periods 5-19

- Automatic Administration Logon 2-16

- Auto-play 5-69

- Auxiliary Tasks 4-6, 5-17

B

- Backup 2-3

 - Power Supply 2-3

- Base Memory Segment 2-8

- Blind Transfer 5-53, 5-79

- Blind Transfer Delay 5-31

- Block Group 5-107

- Blockage Groups 7-15

- Board

 - Address 2-9

 - Configuration 2-25

 - Jumpers 2-8

- Board-Level Jumpers 2-8

- Body Prompts 5-89

- Boom Box 2-52

 - Buttons 7-5

 - Description 7-1

 - Menu Bar 7-2

 - System Prompts 7-9

- Build a Fax Database C-35, C-40

- Busy 2-25, 5-31

- Buttons

 - Boom Box 7-5

-
- Edit Functions (Boom Box) 7-6
 - File Functions (Boom Box) 7-7
 - MAINT 4-8
- C**
- Call
 - Begin/End 5-7
 - Holding 5-80
 - Options 5-79
 - Queue Interval 5-4
 - Queuing 5-80
 - Traffic Information 6-10
 - Caller
 - Record Options 5-67
 - Retries 5-15
 - Send Options 5-67
 - Callers 5-60
 - must call from FAX machine C-37
 - Cascade To 5-50
 - Cascading 5-50, 5-75
 - Central Office (CO) 2-11
 - Centrex/Essex Line 2-12
 - Chalk Talk C-2
 - Homework Assignment Info C-22
 - Outbound Calling (via Call Lists) C-4
 - Question & Answer Sessions C-26
 - Change Language 5-92
 - Channels 2-7
 - Check Logs C-90
 - Class of Service C-49
 - Button 4-8
 - Greeting 5-62
 - Settings 4-6, 5-56, 6-23
 - Class of Service (COS) 5-48, 5-56, 5-62
 - Client C-56
 - Client PC C-58
 - Codekey Manager 2-23, 2-52
 - COM Ports 3-1, 4-6
 - Combining Commands A-11
 - Command Descriptions A-2
 - Command Files 5-91, 5-100, 5-106, A-1
 - Company Directory 5-91, 5-100, 5-106
 - Computer/ Processor 2-2
 - Confidential 5-67, 5-71
 - Configuration 2-14, 2-26, C-60
 - Hardware 2-5
 - Menu 4-5
 - Operating System 2-14
 - Preparation 4-1, 4-2
 - Configure
 - Dialogic Software 2-25
 - Host Information 7-14
 - Onelook + Point to Point Server C-58
 - PBXPert 2-25
 - Confirm Deletes 5-70
 - Confirmation 5-71
 - Connect 5-31
 - Connection Status C-79
 - Convert Menu (Boom Box) 7-4
 - COS 5-56
 - Postfix Prompt 5-62
 - Prefix Prompt 5-62
 - Template 5-57
 - Counters (Event) 7-16
 - Country-Specific Configuration 2-25
 - Cover Sheet C-37
 - Create a Key to Run Fax On Demand C-

- 35, C-38
- Create Range 5-45
- Creating
 - COSs 5-81
 - Menus 5-86
 - System Lists 6-3
 - Template Time Controls 5-94
 - Time Controls 5-95
 - Users 5-40
- Current Drivers 2-7
- Custom 5-13
- Customizable (non-indexed) Prompts 7-10
- Customization Parameters 3-3

D

- Daily Log 6-32
- Debugging 8-7
- Default Gateway 2-19
- Default Hook Switch State 2-8
- Defining Parameters 4-2
- Definition 5-56
- Delete
 - COS 5-83
 - Menu 5-87
 - Message 5-76
 - Range of Mailboxes 5-56
 - Registry Item 5-36
 - Single User 5-55
 - System List 6-6
 - Time Control 5-101
 - Unheard 5-73
 - User 5-55
- Department 5-47
- Description 5-59, 5-88, 6-3, C-88

- Designing a Menu 5-84
- Detection Settings 5-23
- Determining System Size 2-3
- Determining Tone Type 5-25
- Device Status 7-8
- Device Type 7-8
- Dial Hold Sequence 5-80
- Dial Source 5-70
- Dialog/4 2-5, 2-7, 2-27
- Dialogic
 - Drivers 2-5, 2-20, 2-21
 - Products 2-7
 - Program Group 2-25
 - Software 2-25
 - Voice Ports 7-1
- Dialogic-based Troubleshooting 7-8
- Dial-out 2-13
- Digit Lengths 4-6, 5-1
- Digit Time 5-15
- Direct Attachment to the Central Office 2-12
- Directories 4-6, 5-16
- Directory 5-5, 5-7, 5-100
- Directory Report 4-7, 6-30
- Disabled Key 5-91
- Display 2-2
- Distribution Lists 6-1
- Do Always 5-54
- Do Not Disturb 2-25
- Drive 2-2
- Drive Size Formula 2-4
- DTMF
 - Keys 4-9
 - Pound 4-9
 - Star 4-9

- Tones 2-7
- Dual Tones 5-28
- Dutch 5-13

E

- Edge 5-28
- Edit Menu 4-6
- Edit Options 7-5
- Editing
 - IVR Time Period Settings 5-19
 - Menus 5-87
 - System Lists 6-6
 - Time Controls 5-96
 - User Setups 5-46
- Enable Point to Point Messaging C-87
- Error Log 6-34
- Error Messages 8-2
- Essex Line 2-12
- Event Counters 5-60
- Event Group 5-107, C-37, C-87
- Event Handler Group 5-74
- Exit Button 4-9
- Exiting Configuration Utility 2-42
- expansion slot cover 2-11
- EXT List C-102
- Extended Options 5-79
- Extension Settings
 - Detail Report 6-22
 - Summary Report 6-21
- Extension Usage Report 6-13
- Extensions 5-44, 5-90, 5-100, 5-105
 - Length 5-2
 - Settings 5-51

F

- Fax 5-64
 - Adding Voice Description to a Facsimile Document C-42
 - Configuration C-35
 - Create Key to Run Fax On Demand C-38
 - Database C-35, C-40
 - Delivery Module Access C-52
 - Document Number C-40
 - Documents Report 6-16
 - Fax Messages (Onelook) C-69
 - Fax On Demand Application
 - Sample C-43
 - Fields and Descriptions C-37
 - Hardware C-35
 - ID C-37
 - Internet Fax Delivery C-45
 - Leaving a Fax in a Mailbox C-44
 - Mail C-34, C-35
 - Mailboxes C-44
 - Menu C-38
 - Modules 4-6
 - On Demand 5-91, 5-100, 5-106, C-34, C-35
 - Retrieving Facsimiles C-45
 - Routing C-51
 - Set Up Fax Support in MAINT C-36
 - Support 5-7, C-34
 - Using Fax Software C-41
- FF and REW Speed 5-3
- Fields 5-17
- File
 - Information 7-8

- Type 7-8
- File Format 7-8
- File Menu
 - Boom Box 7-2
 - MAINT 4-5
- File to send as cover sheet C-37
- First Time Help 5-68
- First Time Questions 4-3
- Flash-hook
 - Character 4-9
 - Length 5-31
 - Transfer 2-13
- Forward
 - to another Mailbox 5-50
 - to Extension 5-50, 5-54
 - to Mailbox 5-54
 - to Menu 5-50, 5-54
 - to Module 5-50, 5-54
 - to Time Control 5-50, 5-54
- Forward Msgs 5-70
- Foundation software 1-2
- French 5-13
- Frequency settings 5-28
- Future Send 5-71

G

- General Operator 5-9
- General Settings 5-59, C-52
- General Tone Detection 5-24, 5-27
- General User Settings 5-46
- Generation speed 6-9
- German 5-13
- Greeting 5-72
 - Length 5-63
 - Settings 5-61

- Type 5-61
- Guest Mailboxes 5-72

H

- Hang Up 5-92
- Hang Up Detection 4-6, 5-23
- Hang-Up Detection C-104
- Hard Disk 2-2
- Hard Disk Storage Size 2-3
- Hardware Compatibility List (HCL) 2-1, C-1
- hardware interrupt circuitry 2-8
- HCL 2-1, C-1
- Help Menu
 - Boom Box 7-4
 - MAINT 4-7
- Help Prompts C-106
- hold 2-13
- Hold Interval 5-80
- Hold Type 5-79
- Holding 5-79
- Holding Allowed 5-53
- Holidays 5-19
- Homework Assignment Information C-22
- host computer attachment 2-5
- How Can I Be Certain I Configured My Dialogic Boards Correctly? 2-54
- Hunt Group, use of C-103
- HyperTerminal 3-5

I

- Immediate 5-75
- Immediate notification 5-51
- index file 7-1

Indexed Prompts 7-10
Indexed vs. Non-Indexed Prompts 7-9
infinite Systems 3-28
 4096 3-28
 DVX I 3-30
 DVX II 3-32
 DVX III 3-34
 DVX Plus II 3-38
 DVX PLUS III 3-40
 Mach-1 3-36
INI File 2-51
INI File Settings 5-39
INI Parameter 5-39
Install
 Adapter 2-18
 Hardware 2-5
 Operating System 2-14
 PathFinder Software 2-20, 2-21
 Streams Environment 2-19
Installation 2-14, 7-1, C-58
Installation (Internet Fax Delivery) C-46
Installation Troubleshooting 2-53
Instructions prompts 5-89
Integrate Phone System(s), if applicable 3-1
Integration 3-2, 5-7
Inter-Digit Time 5-15
Internet Fax Admin 2-52
Internet Fax Delivery C-45
Internet Fax Server 2-53
interrupt level 2-8
Introduction prompts 5-89
Invalid Option 5-91
IP Address 2-19

IP Address and Port C-88
IRQ 2-9
ISA slot 2-2, 2-11
IVR Time Period Settings 5-19

J

JP7 2-9
Jump Board Configuration 2-8
Jumper pins 2-8
jumpers 2-6, 2-8

K

Kanji 5-13
Key Action Definitions 5-90
Korean 5-13

L

Language 4-6, 5-13, 5-60, 5-92
Last Options 5-67
Last Options Menu 5-67
Last Resort Extension C-104
Leave as New 5-76
Leaving a Fax in a Mailbox C-44
Level One Backup 8-1
Level Three Backup 8-1
Level Two Backup 8-1
Levels 1 through 5 Access 4-11
Levels 6 and 7 Access 4-11
Limited Administrator Access 4-11
Limited Supervisor Access 4-11
Line Settings 4-6
 Button 4-9
Line View (Status) 7-17
LINKING A QUESTIONNAIRE TO A MENU C-29

- List Mode 5-5
- Log Files 5-6, 8-2
- Log On 2-15
- Logging 4-6, 5-6
 - Options 5-7
- Logs Reports 6-31
- Loop current disconnect 2-13
- Loop Current Drop 5-25
- Loop Current Supervision 5-24
- LPT / COM Ports 5-18
- LPT/COM Ports 4-6

M

- Mailbox 5-44, 5-90, 5-100, 5-105
 - Action 5-50
 - Caller Settings 5-66
 - is Full 5-50
 - is Off 5-50
 - Length 5-2
 - Owner Settings 5-68
 - Settings 5-49
 - Single 5-43
 - State 5-72
 - Template 5-44
- Mailbox Length C-88
- Mailbox Settings Detail Report 6-20
- Mailbox Settings Summary Report 6-19
- Mailbox Usage Report 6-11
- Mailer Address and Port C-87
- MAINT 2-53
 - Application Overview 4-5
 - Logins 4-10
 - Passwords 4-1, 4-10
 - Toolbar 4-8

- Maintenance Log 6-33
- Making Changes 5-17
- Manual Backup 8-1
- Max Retries 5-92
- Maximum documents a caller can select C-37
- Maximum Keys 5-5
- Maximum Wait 5-5
- Memory 2-2
- Menu Activity Report 6-14
- Menu Logs 8-9
- Menu Settings Report 6-24
- Menus 5-7, 5-84, 5-91, 5-100, 5-105
 - Creating 5-86
 - Deleting 5-87
 - Design 5-84
 - Multi-Level 5-85
 - Settings 4-6, 5-83
 - Time Periods 5-19
- Message Cascading 5-50
- Message Detail Report 6-36
- Message Manager 5-7, 5-17
- Message Summary 6-35
- Message Type 5-64
 - Menu 5-64
 - Settings 5-63
- Message Waiting 5-22, 5-74
 - Indicator Strings 5-74
- Messages
 - Cascading 5-75
 - Clean Up 5-11
 - Count 5-65
 - Date Time 5-69
 - Length 5-65
 - Retention 5-65

Messages Reports 4-7, 6-35
microphone 7-1
microphone gain 7-9
Microsoft Windows® Hardware
Compatibility List (HCL) C-1
Minimum Password Length 5-2
Minimum Record Length 5-3
Minimum Requirements 2-2
Minimum ring OFF 5-33
Minimum ring ON 5-33
minlcoff parameter 5-25
Modem 2-3
Modifying a COS 5-83
Modifying Command Files A-13
modular jacks 2-11
Module Settings 5-1
Monitor
 Application 7-13
 Display Windows 7-15
Motherboard 2-2
Msg Pickup Allowed 5-75
multi-level menu 5-85
Multiple Lines 8-8
Multiple Mailboxes 5-45
MWI Refresh 5-11
MWI/Notification 4-6, 5-21
My messages are not synchronized C-
73

N

Name 5-72
network adapter card (NIC) 2-18
Network Backup 8-1
Network Interface Card 2-3
NIC 2-18
No Answer 5-31

No Answer Log 8-9
No notification 5-51
Non-Indexed Prompts 7-10
Non-silence interval 5-26
Not Allowed 5-71
Note pad 5-72
Notification 4-6, 5-7, 5-12, 5-51, 5-72
Notification Activity 6-17
Notification Prefix 5-23
Notification Settings 5-73
Notify Interval 5-77
Notify Retries 5-77
Notify Script 5-77
Number Length to Edit 5-22, 5-30
Number of Ports 2-4
Number of rings before No Answer
detected 5-32
Number of rings before system
answers 5-32

O

offset address 2-8
Oldest Message First 5-69
On- Every Message 5-74
On- First Message 5-74
On Urgent Only 5-76
Onelook 2-53
 Archiving Messages using
 Onelook C-71
 Creating a New Voice Message C-
 66
 Fax Messages C-69
 Forwarding a Voice Message C-65
 Installation & Configuration C-57
 Replying to a Voice Message C-63

- System Requirements C-56
- Troubleshooting C-72
- Unified Messaging C-55
- Using C-61
- Onelook + Point to Point Server C-73
 - Guidelines C-79
 - Installation C-75
 - Requirements C-74
 - Setup & Configuration C-75
 - Troubleshooting C-83
 - Usage C-78
- Only on busy 5-54
- Only on no answer 5-54
- Opening Prompts C-104
- Operators 4-6, 5-9, 5-49, 5-91
- Optional Modules 5-35
- Optional modules C-1
- Optional PC Equipment 2-3
- Optional software modules 1-2, 4-6
- Original Message 5-76
- Other MAINT Settings 5-34
- Other Protocols 3-5
- Outbound Calling (via Call Lists) C-4
- Outlook or Exchange Locks Up C-73
- Outside Numbers 5-71
- Overall Procedures
 - Configuration 4-1
 - Hardware Setup 2-6
- Owners 5-60
 - Access 5-91, 5-100, 5-105
 - Edit Options 5-72
 - Play Options 5-70
 - Retries 5-15
 - Send Options 5-71

P

- Page 5-64
- Paged Mode 5-5
- Pager Files, samples A-12
- Pager Mailbox Delay 5-12
- Pager notification 5-51
- Passwords 4-12, 5-47, 5-72, 5-88
 - Attempts 5-12
 - Length 5-2
 - Required 5-75
- PathFinder Components 1-2
- PathFinder Monitor Application 7-13
- PathFinder Won't Start 2-53
- Pause 4-9
- PBX 2-11
 - Attachment 2-12
 - Integrations 4-6, 5-34
 - Name 5-107
 - Voice Bridge 3-5
- PBXpert 2-21, 2-25, 2-42
 - Wizard 2-43
- PC Anywhere 32-bit 2-3
- PC Preparation 2-10
- PC System Placement 2-5
- PDF 2-23
- Perfect Call 4-6, 5-33
- Perform a System Analysis 2-1
- Period Definitions 5-19
- Peripherals 2-2
- Personal Computer (PC) 1-2
- Personal greeting 5-61
- Personal Lists 5-72
- Personal Mailbox Operator 5-10
- phone cable 2-11
- Phone Line Assignments 2-10

- Phone number 5-51
- Phone Number Translations C-50
- Physical Board Installation 2-11
- Play Call Source 5-81
- Play entire date 5-69
- Play Hold Files 5-80
- Play Instructions 5-92
- Play Prompt 5-92
- Point to Point 2-53, 4-6
- Point To Point Messaging C-84
- Point to Point Messaging
 - Configuration C-86
 - Features C-85
 - Installation C-86
 - Troubleshooting C-90
 - Using Point To Point Messaging C-89
- POP C-75
- Portable Document Format (PDF) 2-23
- Position in Queue C-104
- Postfix 5-31
- postfix prompt 5-62
- Potential Conflicts 2-10
- pound 4-9
- Pre-Defined Command Files A-12
- Prefix 5-30
- prefix prompt 5-62
- Preparation 2-6
- Prerequisites 3-1, 4-1
- Prerequisites & Preparation 2-20
- Pressing a Key to Stay in Queue C-104
- privileges 4-11
- Problems
 - Diagnosis, Phone System
 - Integration 3-5
 - with PathFinder 8-12

- with the PC Hardware and/or Operating System 8-12
 - with the Telephone System 8-11
- Prompt Names and Descriptions C-105
- Proprietary Connections 2-13

Q

- Q&A Admin 2-53
- Question & Answer Sessions C-26
- QUESTIONNAIRE PROMPTS C-32
- Questions & Answers 8-12
- Queue Introductions C-106
- Quick Command Descriptions A-10
- Quick Commands A-10
- Quick Jump Key 5-12
- Quick Start 1-1

R

- Recall Caller On 5-31
- Re-connect 2-13
- Record Key 5-65
- Record Prompts 5-92
- Record Stop Key 5-66
- Record Tone Length 5-3
- Record/Playback 4-6, 5-2
- Recorded voice message playback is not easily audible C-73
- RECORDING PROMPTS C-31
- Registry 2-18, 4-6, 5-36
 - Item Fields 5-39
 - Maintenance 5-36
- Registry (TeleQueue) C-96
- Registry Item, Add or Edit 5-37
- Registry Settings Detail Report 6-28

-
-
- Registry Settings Summary Report 6-26
 - Reject 5-31
 - Release catalog 2-26
 - Remote Diagnostics 2-3
 - Remote Locations C-87
 - Removing a Board 2-40
 - Re-Order Detection 5-27
 - Re-Order Tone 5-24
 - Repeat Count 5-28
 - Replacement Prompts 7-11
 - Reply To Msgs 5-70
 - Reports C-48
 - Data 6-10, 6-12, 6-13, 6-15, 6-17, 6-18, 6-19, 6-20, 6-21, 6-22, 6-23, 6-24, 6-26, 6-27, 6-28, 6-29, 6-31, 6-32, 6-33, 6-34, 6-36, 6-37
 - Use 6-11, 6-12, 6-14, 6-15, 6-17, 6-18, 6-19, 6-21, 6-22, 6-23, 6-24, 6-25, 6-26, 6-27, 6-28, 6-29, 6-31, 6-32, 6-33, 6-34, 6-36, 6-37
 - Reports Criteria 6-7
 - Reports Menu 4-7
 - Reports Overview 6-7
 - Requirements 7-1
 - Requirements (Internet Fax Delivery) C-46
 - Requirements (Point to Point) C-85
 - Requirements (TeleQueue) C-95
 - Restrict OutDial to 5-60
 - Retries 5-88
 - Retries/TimeOuts 4-6, 5-14
 - Retrieving Faxes C-45
 - Retry attempts C-37
 - Retry Delay C-87
 - Retry interval C-37
 - Retry Pager 5-77
 - REW Speed 5-3
 - ring back 2-25
 - Ring count reset delay 5-33
 - Ring Detection 5-33
 - ring detection threshold 2-8
 - Ring edge to detect 5-33
 - Rings 4-6, 5-32
 - RJ-11 jack 2-11
 - RJ-14 jack 2-11
 - RS-232 2-5, 3-1, 3-5
 - Run ActiveVex 5-91, 5-100
 - Run Module 5-91, 5-100, 5-106
 - Running the Monitor Application 7-13
 - Russian 5-13
- S**
- Save Message 5-76
 - Save Msgs 5-70
 - Screen Caller 5-53
 - Screen Length 5-80
 - Screening 5-79
 - sensitivity 7-9
 - Sentinel Drivers 2-21
 - Server 7-14, C-56
 - Server PC C-57
 - Servers in Network C-49
 - Service Provider window keeps displaying C-72
 - Set Dialogic Service Startup Mode 2-26
 - Set Hang-up 5-29
 - Set Up Phone System 3-6
 - Set Wait 5-29

-
-
- Setting MAINT User Passwords 4-12
 - Setting Up Fax Support in MAINT C-36
 - Setting Up Phone Lines 5-102
 - Setting Up Time Control Parameters 5-94
 - Settings Guidelines C-48
 - Settings Reports 4-7, 6-18
 - Setup & Configuration (Internet Fax Delivery) C-47
 - Setup Reporting 6-9
 - Silence 5-79
 - Silence Interval 5-26
 - Single Mailbox 5-43
 - Single tones 5-28
 - Skip Message 5-70
 - SMDI.INI File 3-4
 - SmdiDigitLength 3-3
 - SmdiMaxRings 3-3, 3-4
 - SmdiMaxWaitTime 3-3
 - SmdiMbxPassword 3-3
 - SmdiSkipCheck 3-3
 - SmdiXOnXOff 3-3
 - SMTP-In C-80
 - Software 2-2
 - Software Installation 2-21
 - Software Overview 2-51
 - Software Security Key 2-5, 2-13
 - Spanish 5-13
 - speakers 7-1
 - Special Characters & Strings 4-9
 - Specific Extension Number 5-91
 - Specific Mailbox Number 5-90
 - Star 4-9
 - Starplus Systems 3-6
 - 96EX 3-7
 - DHS 3-18
 - SPD 1428 3-12
 - SPD 2856 3-14
 - SPD 4896 3-16
 - SPD 612 3-10
 - Triad 1 3-22
 - Triad 2 3-24
 - Triad 3 3-26
 - Triad S 3-20
 - Start a Fax Transmission C-54
 - Start Key 5-90
 - Start Up Mode 2-42
 - Startup & Orientation 7-13
 - Storage Size Factors 2-4
 - Streams Environment 2-14, 2-19
 - Subnet Mask 2-19
 - Subscriber Settings Button 4-8
 - Subscribers 5-40, C-48
 - Suggested Initial Module Settings 5-107
 - Supervised Transfer 5-53, 5-79
 - supervised transfers 2-42
 - Switch Requirements 3-1
 - switches 2-6, 2-8
 - Synchronization in Onelook C-57
 - System
 - Add-on 5-62
 - Partitioning 5-102
 - System (Distribution) Lists 4-6, 5-71, 6-1
 - System Activity Log 8-4
 - System Directory 5-5
 - System Distribution Lists Report 6-29
 - System Error Log 8-2
 - System greeting 5-62
 - System Maintenance Log 8-3
 - System Prompts 7-9

System Requirements 2-1

System Size 2-3

T

Take a message 5-50

Tape Backup 8-1

Tape Drive 2-3

TCP/IP 2-14

Technical Notes A-11

Technique 8-11

Telephone Connection 2-11

telephone system 3-6

Telephony Hardware 1-2

 Compatibility 2-5

 Configuration 2-7

 Installation 2-10

Telephony Settings 5-20

TeleQueue C-95

 Attaching TeleQueue C-103

 Getting Started C-96

 Hang-Up Detection C-104

 Help Prompts C-106

 Introductions C-106

 Last Resort Extension C-104

 Non-Queue-Specific Prompts C-107

 Opening Prompts C-104

 Position In Queue C-104

 Pressing a Key to Stay in Queue C-104

 Prompts and Descriptions C-105

 Registry C-96

 Reports 2-53

 Requirements C-95

Sample Logs C-108

Setup Items C-103

Troubleshooting / Testing C-107

Wait For Transfer C-106

Telequeue

 Registry Items C-96

 Tq0000AlwCllr C-101

 Tq0000Desc C-97

 Tq0000ExitExt C-102

 Tq0000ExtLog C-99

 Tq0000HldTyp C-97

 Tq0000HlpFls C-97

 Tq0000Loops C-98

 Tq0000LstExt C-97

 Tq0000LstRsrt C-98

 Tq0000Menu C-98

 Tq0000MstrQ C-101

 Tq0000NoRBBfrHu C-101

 Tq0000NTmToAsk C-99

 Tq0000PlayTm C-98

 Tq0000PsudoSup C-101

 Tq0000ShwCntrs C-101

 Tq0000StrtAtTp C-101

 TqCsrCntl C-99

 Use of Hunt Group C-103

Template Class of Service 5-57

Template Users/Subscribers 5-41

Templates 5-57

Test (Point to Point) C-89

Testing C-107

Time Control 5-7, 5-49, 5-52, 5-59, 5-88, 5-91, 5-100, 5-106

 Button 4-9

 Settings 4-6, 5-93

- Time Control Settings Report 6-25
- Time Out 5-88
- Time Periods 4-6, 5-18
- Timed notification 5-51
- Time-Out 5-92
- Tone Events 5-29
- Tone ID 5-28
- Tone Interval 5-25
- Tone or Silence Disconnect 5-24
- tone set file 2-25
- Tone Template, Add or Edit 5-27
- Tone Type 5-25
- Toolbar
 - MAINT 4-8
- Track Messages
 - 5-7
- Traditional Fax Machine C-40
- Transfer Fields 5-30
- Transfer Out 5-73
- Transfer Settings 4-6, 5-30
- Transfer Strings 5-81
- Troubleshooting 7-8, 8-11, C-55
- Troubleshooting (Point to Point) C-90
- Troubleshooting / Testing C-107
- Truncate Recording 5-3
- Trunk Access 6-12
- Tutorial 5-48

U

- UDDU 2-26, 2-54
- Uninstall 2-26
- Un-interruptible Power Supply (UPS) 2-5
- Universal Dialogic Diagnostic Utility (UDDU) 2-26, 2-54
- Unlimited Supervisor Access 4-11

- Upgrading From Previous Version 2-40
- UPS 2-5
- Urgent 5-67, 5-71
- Urgent notification 5-51
- Usage 6-10, C-54
- Use of Hunt Group C-103
- Use Perfect Call 5-31
- User Type 5-60
- User-Edited Features 5-55
- Users 5-40
- Users Settings 4-6, 5-40
- Using a Traditional Fax Machine C-40
- Using Fax Software C-41
- Using Point to Point Messaging C-89

V

- VDX 7-1
- VFX/40ESCplus 2-5
- VFX40ESC plus 2-33
- Voice 5-64
- voice attachments C-37
- Voice Bridge 3-1, 3-5
- Voice Cards 2-2
- voice channel jack 2-11
- Voice Description (of a fax document) C-42
- voice I/O channels 2-7
- Voice Insert 5-62
- Voice Lines 4-6, 5-21
- Voice Mail 4-6, 5-7, 5-11
 - Operator 5-10
 - Owner 5-7
 - Time Periods 5-19
- Voice Menu Button 4-8
- Voice Messages C-62

- Voice Network Attachment 2-12
- Voice Notify Options 5-75
- Voice Port Menu (Boom Box) 7-3
- voice ports 7-1
- voice processing boards 2-25
- voice prompt file 7-1
- voice prompts 1-1
- voice recording sampling rate 2-4

W

- Wait For Transfer C-106
- WAV device 7-1
- WAV-based Troubleshooting
 - 7-9
- What To Debug 5-8
- What To Log 5-6
- When Notify Fails 5-76
- Why am I not receiving any Onelook messages in Outlook? C-72
- wildcards C-51
- Windows NT® Hardware Compatibility List (HCL) 2-1
- Work Hours 5-19

